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ABSTRACT

A pilot project for individualizing elementary teacher education was developed based on the Model Elementary Teacher Education Project of the U. S. Office of Education. It provided individualized instruction in four context areas for 14 elementary education majors during half of the senior year. The context areas were: 1) clinical experiences in health and recreation, 2) clinical-tutorial experiences in measurement, 3) individualized teaching, 4) supervised teaching. The project was evaluated by means of participant comments, pre- and post-tests of participants and a control group on the Minnesota Teacher Attitude Inventory (MTAI), and rating of participants and controls on an Individualized Teaching Analysis (ITA) schedule developed especially for this project. Student comments were overwhelmingly favorable, and the MTAI and ITA scores indicated that project participants had a significantly more positive attitude toward teaching and used significantly more individualized teaching procedures than the control group. Aspects of the project under study for inclusion in the regular teacher education program include small seminars, independent study, a behavioral approach, and team teaching by faculty. (A 66-page appendix contains an outline of behavioral objectives for the four context areas.) (RT)

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FINAL REPORT

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A PILOT PROJECT FOR INDIVIDUALIZING ELEMENTARY TEACHER EDUCATION

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Rock Hill, South Carolina 29730

June 1970

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ABSTRACT

Title of Project: A PILOT PROJECT FOR INDIVIDUALIZING ELEMENTARY TEACHER EDUCATION

Principal Investigator: Dr. Patricia R. McClendon

Contracting Agency: Winthrop College, Rock Hill, South Carolina 29730

Amount of Federal Funds: $9906.00

Proposed Beginning and Ending Dates: 1 April, 1969 to 30 June, 1970

Summary: The project was a curriculum development activity to provide an individualized learning component for one-half of the senior-year experience for fourteen elementary education majors. It was designed to furnish a model in individualized teaching for study by the faculty of the School of Education, to enable project students to engage in individualized teaching in the student teaching segment of the program, and to offer recommendations for modification of the Winthrop program in elementary education.

The project was expected to contribute to teacher education by demonstrating that prospective teachers who experience a considerable amount of individualized learning in their professional training more readily utilize individualized learning strategies in their own teaching.

Project students studied under the direction of a single instructor in four context areas, using curricular units involving self-selection and self-pacing procedures. The context areas included: (1) clinical experiences in health and recreation; (2) clinical-tutorial in measurement; (3) individualized teaching; and (4) supervised teaching. Inquiry group, and teaching teams were organized to encourage cooperative inquiry, investigations, and mutual support in learning. Specifications from several of the Phase I plans submitted by major universities under grants of the Bureau of Research (Model Elementary Teacher Education Project) were modified to meet local conditions. Evidence to the effect that project students were able to individualize learning in the student teaching phase of the project was determined through use of an Individualized Teaching Analysis schedule developed locally.

The first objective, that of individualizing instruction for a pilot group of elementary education majors was accomplished by means of the curriculum unit structuring of the program and the operational procedures utilized. The curriculum unit structure for the major context area facilitated individualized learning in that students self-selected (within an overall framework) objectives and activities. Operational procedures for the project were designed to foster acceptance of greater responsibility for his own progress on the part of the student, as a basis for individualizing learning. The functioning of project students throughout the program indicated substantial growth in self-direction. Comparison of the project with A Construct for Individualizing Instruction indicates that the project students

were engaged in a program which was characterized by a high degree of individualization.

A model in individualization has been accomplished as a result of the study. Aspects of the study, such as: curriculum unit planning; greater student involvement; reduction in class size; flexible blocks of time for class meeting; and interrelated learning experiences will require extensive study by the School of Education faculty in terms of feasibility on a larger scale. Limited implementation of a curriculum unit approach to study is already underway.

Results of the Minnesota Teacher Attitude Inventory pre- and post-tests indicate that students participating in the project showed a significant change (beyond the .005 level) in positive attitudes toward teaching. No increase in openness and sensitivity is indicated by the control students. The difference between these two groups on MTAI post-test scores is not significant when tested by the Wilcoxon. This finding is not consistent with the first three findings which indicated that:

a. the two groups did not differ in attitude toward teaching (MTAI) at the beginning of the project;
b. the experimental group showed a marked (beyond the .005 level) positive change in attitude (MTAI); and
c. the control group revealed no significant change in attitude (MTAI).

An examination of the raw data uncovered two rankings which might have adversely affected the Wilcoxon by distribution variability. The Sign test was then applied to the difference between the experimental and control group MTAI scores with the result that the null hypothesis is rejected. Experimental students do have more favorable attitudes toward teaching and have a greater degree of openness and sensitivity (as measured by the MTAI) than do control students at the conclusion of the study.

While the observation section of the ITA does not indicate that the project students used individualized teaching procedures to any greater extent than the control group, the interview section shows a highly significant difference (beyond the .005) in favor of the experimental group. The brief period of time included in the observation ratings (one half hour) may account for the discrepancy between the observation and interview findings.

Numerous recommendations for modifications of the Winthrop program in elementary education have emerged as a result of this study. Several have already been incorporated. Others will require extensive study by the School of Education faculty before any attempt is made toward implementation.

BACKGROUND FOR THE STUDY

Problems and Objectives

The School of Education at Winthrop College shares the concern of many institutions involved in the preparation of elementary school teachers for a teaching-learning strategy consistent with the changing character of elementary education. Advances in educational technology, learning theory, school organizational practices, curriculum development, and school staffing patterns are reflected in an emerging elementary school for which traditional procedures in undergraduate teacher education are no longer adequate. The core of this concern centers around individualized learning.

Present programs of most institutions of higher education do not adequately prepare elementary education graduates as managers of individualized learning. Winthrop College is no exception. Winthrop College coordinators report that our student teachers direct large group activities satisfactorily, but are not sufficiently acquainted with diagnostic routines, management procedures, or differentiated use of instructional materials to prepare individualized learning environments even in such recognized crucial areas as reading and mathematics. Self-evaluations of student teachers at follow-up conferences on campus reveal they are hardly aware of deficiencies in individualized teaching.

The design of this Winthrop project was derived from a number of assumptions underlying model program development in various colleges and universities throughout the country and additional assumptions held by members of the School of Education faculty at Winthrop. The former assumptions are common to most of the Phase I plans submitted by eight leading universities and one regional education laboratory to the U. S. Office of Education under grants of the Bureau of Research (Model Elementary Teacher Education Project). Most of the eight models under feasibility study this year have in common certain concerns: instruction needs to be highly individualized; the curriculum needs to be carefully planned as a sequence of related experiences which all focus on eventual teaching performance; the student must assume greater responsibility for his own progress toward professional competence; and the college student should, in his own training, experience as a student the modes of teaching and learning which he is expected to implement in his later experience as an elementary school teacher. Most basic to the additional assumptions of the School of Education faculty is the belief that attitudes toward teaching held by prospective teachers can be modified by the teacher education program to which they are exposed.

These assumptions should be reflected in the curriculum of the college program of teacher education. It was toward this end that the following objectives were proposed.

1. To individualize instruction for a pilot group of fourteen elementary education majors in one-half of their senior-year program.

2. To provide a model in individualization for study by the School of Education faculty.

3. To determine whether project students indicate, in attitudes and behaviors, more facility for individualizing instruction than do control students.

4. To prepare recommendations for modification of the Winthrop program in elementary education based on the project experience.

Procedures and Design for the Study

This small scale project involved a sample of senior-year elementary education majors in a significantly modified instructional procedure designed to develop teaching skills useful in individualized learning setting. The curriculum design employed was based on the following assumptions adapted largely from those described in the model developed by the University of Pittsburgh (2, pp. 3-4).

1. Instruction was organized around curriculum units (instructional modules) arranged in a specific sequence.

2. Curricular units were sufficiently flexible to allow individual students to adapt these units to their own particular learning styles.

3. Individualization of instruction was acquired through varying goals from student to student, varying learning materials and equipment to suit individuals, varying the learning setting (independent study, student team, tutoring by the professor, small groups working without the professor, small groups working with the professor, students working in a clinical setting with individual children, students working in a laboratory setting with small groups of children and with intact classes, whole group learning through lecture-discussion-demonstration), and varying the rate of advancement for each student through selected phases of the curriculum.

4. The professor offered help chiefly on an individualized or small group basis, and was always available for consultation.

5. The student conducted much of his learning independently of the teacher, employing self-direction based on clearly defined plans.

6. An inquiry approach was used, in which students individually negotiated their way through activities, but mutually supported each other through discussion and cooperative investigation and evaluation. Small group feedback teams supported each other in their individual learning tasks.

A primary concern was that the project not deteriorate into little more than a modified programmed learning approach. Since it was felt that the student should accept greater responsibility for his own progress it was necessary to develop the program in such a way that the learner would be given an opportunity to gain proficiency in self-direction. How this was accomplished through the procedures and design of the study is described in the following explanation of the scope and sequence of the curriculum, the development of curricular units, and the teaching-learning strategy employed.

Scope and Sequence of the Curriculum

For the fall semester of the 1969-70 academic year the project included only three semester hours of each student's total load of approximately fifteen hours. This gradual introduction into the program was designed to provide time for the students to become accustomed to the processes and procedures which would be used extensively in the spring semester.

These three semester hours were designated Context Area 1: clinical experiences in health and recreation. The main purposes of this introductory experience were to help the student gain a practical understanding of the health status of the child and how this affects his well-being, and to afford the student informal experiences with small groups of children in recreational settings of an educational nature so that interests, attitudes, and adjustment factors might be explored. The remaining 12 semester hours of study in conventional areas included courses in the student's major concentration, electives, and courses required for teacher certification.

The spring semester was completely restructured, except for Education 401, Mathematics and Science in the Elementary School, which project students took in conventional classes for the first half of the semester. For the remaining 12 semester hours, the model structure consisted of individualized learning in Context Areas 2,3, and 4.

Context Area 2: clinical-tutorial in measurement was an application of measurement to the field of reading (prerequisite: Education 303, Teaching Reading in the Elementary School) and included study of differential diagnosis and individualized instruction in reading. Laboratory experiences, first with individual children, then with small groups, and finally with intact classes were required.

Context Area 3: individualized teaching relied on independent study, group discussions, and field trips to centers where experiments in individualized learning are underway. In the laboratory phase the student conducted his own investigation of individualized teaching

with individuals and small groups.

In Context Area 4: supervised teaching, students were given student teaching assignments in Rock Hill schools with selected supervising teachers. Assignments were made on a team basis (two student teachers to each supervising teacher) in order that more intensive preparation for teaching could be made by each student teacher and a peer-system feedback arrangement could be preserved. Curricular units were constructed on an individual student basis, allowing for special needs and interests of each prospective teacher, although communality was maintained.

Development of Curricular Units

Most curricular units were planned in considerable detail between April and June of 1969, although unit development, modification, and revision was a continuous process throughout the project year. Curricular units were constructed according to the plan developed by the Consortium of State Universities of Ohio and were organized in this manner (4, vol. II, p. 5):

1. Major Context Area:
   Topic:
   Behavioral Objectives:

2. Treatment: (In this section sufficient detail was included so that readers could understand how the objectives were to be accomplished. Alternate treatments were suggested and in many cases, the student designed his own treatment.)

3. Materials: (Both the general types of materials required and a major published source related to the specifications were supplied. Materials included such things as reference works, bibliographies, film, filmstrips, audio tapes, video tapes, transparencies, models testing kits, classroom textbooks, diagnostic equipment, and programmed learning materials.)

4. Evaluation: (The specific evaluation techniques which might be employed were indicated. Students identified additional evaluative measures.)

Curricular units were, in most cases, developed locally; in others, Phase I, USOE METEP specifications were used. For context area 1, health units came mainly from: (6, pp. III-89 to III-98) while recreation units were developed locally. Units for context area 2 were developed locally with reference to: (5, Vol. II, pp. VL-101). Some suggestions for context area 3 were derived from: (2). Context area 4 units were developed locally. The curricular units found in Appendix A appear as revised by project students. The evidence cited to support the progress toward objective 1 (see page 12) provides further information on the use of curricular units.

Teaching-learning Strategy

A schematic representing the generalized plan for individualization of instruction which guided the project is shown in Appendix B. This plan is common to many developing programs for individualized teaching and in its general form applies both (a) to the learning program for the college project students, and (b) to the individual and group settings for learning in elementary school classrooms. The college students experienced the same general learning styles in their college training that they endeavored to effect in their laboratory teaching experiences.

An adjunct of individualized instruction was the basic teaching style called "cooperative inquiry." The Winthrop project team of fourteen[1] students comprised an inquiry group. This group, with the assistance of the instructor, utilized designated curriculum units to educate themselves. The curriculum units were designed so they were virtually self-administrative. In no activity did the instructor serve a more dominating role than that of adviser, guide, and seminar leader. The structure of each curriculum unit was explained to the inquiry group which, with the help of the instructor, negotiated its way through the activities (3, p. 16). Although each individual proceeded at his own rate and used instructional alternatives chosen either from those suggested in the curriculum unit or of his own design, he obtained reinforcement through sharing ideas and problems with his peers in the inquiry group.

The inquiry group was subdivided into four groups of four students each called feedback teams. The members of the feedback team coached each other when they were learning skills, helped analyze each other's teaching and carried out small projects and investigations throughout the program (3, p. 16).

Each feedback team of four was further subdivided into teaching teams of two students. The teaching teams (eight in number) were composed of the project pairs who were assigned to the same classroom for their student teaching (Context Area 4).

The paradigm for teaching-learning strategy under cooperative inquiry and individualized learning is indicated in Appendix C. The instructor developed the curricular units, arranged them sequentially (although some were to be taken concurrently), and interacted as indicated in Appendix C with (a) the inquiry group, (b) the four feedback teams, (c) eight teaching teams, and (d) each of the sixteen students on a tutorial basis. The instructor maintained a file on each student, showing needs, plans, and progress Appendix D.

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[1]Although the number of E students appears as fourteen, there were sixteen students in the experimental group. Data on two students were excluded from the final report when their matched pairs in the control group were dropped from the study due to illness.

Each student was given a copy of the Student Guide developed at Winthrop for the Project (see Appendix E) to clarify further the structural framework within which the program would function.

Evaluation

The four working objectives of this curriculum development activities were evaluated as follows (see page 2 for list of objectives):

Objective 1 - The curriculum unit format and operational procedures are related to the criteria for individualized learning as evidence that such learning actually took place.

Objective 2 - The entire report of the study substantiates the fulfilment of this objective. In addition, evidence of the extent to which the School of Education faculty studied the project materials is presented along with a summary of student reactions to various aspects of the program.

Objective 3 - Evidence as to whether project students indicated, in attitudes and behaviors, more facility for individualizing instruction during the student teaching phase of the program than did control students, required the research design described below.

Hypotheses to be Tested

Null Hypothesis 1

Experimental students do not differ appreciably from control students in attitudes toward teaching as measured by the MTAI at the beginning of the project.

Null Hypothesis 2

Experimental students do not differ appreciably in attitudes toward teaching as measured by the MTAI at the beginning and end of the project.

Null Hypothesis 3

Control students do not differ appreciably in attitudes toward teaching as measured by the MTAI at the beginning and end of the project.

Null Hypothesis 4

Experimental students do not reveal more favorable attitudes toward teaching as measured by the MTAI at the end of the project than do control students.

Null Hypothesis 5

Experimental students do not individualize instruction (as measured by the ITA) in student teaching to any greater extent than control students.

Sample Used

The experimental (E) group for the model consisted of fourteen senior elementary education majors selected by a screening committee of the faculty of the School of Education. The following selection criteria were employed: (1) interest in the program; (2) GPA of 2.0 or better at the end of the first semester of the junior year; (3) recommendation by the adviser; and (4) judgment of success as a teacher as determined by the instructors in Education 303, Teaching Reading in the Elementary School. Fourteen senior elementary education majors at Winthrop College were selected as a control (C) group in the following manner. All elementary education seniors who matched the E students on the basis of (a) College Entrance Examination (CEEB) total percentile; (b) grade point average (GPA) as of December 1969, and (c) grade level of student teaching, comprised the population from which the C group was drawn. For each E student one C student was selected at random from the group of C students who matched that E student on these criteria.

Collection of the Data

Two instruments were used to probe the effects of the experimental program on students.

The Minnesota Teacher Attitude Inventory (Psychological Corporation) was used as a pre-post test in September 1969 and May 1970 to determine whether project students showed more favorable growth in attitudes toward teaching than did control students. More specifically the MTAI was used to measure (1) comparative openness of E and C groups to interpersonal relationships at the beginning of the project, and (2) change in sensitivity to teacher-child relationships for E students as a result of the project experience. Openness and sensitivity were teacher traits which were assumed to facilitate individualized teaching.

The Individualized Teaching Analysis (ITA) was developed at Winthrop College to obtain data on classroom, teacher, pupil and lesson evidences which met our operational definition of individualized teaching. The ITA is adapted from a plan for observing teaching activities and pupil activities in individualized instruction prepared by the National Laboratory for the Advancement of Education, Washington, D.C. (Appendix F). A pre-test was administered in the fall of 1969 in two selected classrooms. On the basis of the pretest the ITA items were refined and ratings were clarified. Three college coordinators of student teachers were trained in the use of the instrument and two of the three coordinators recorded evidences on each student in the E and C groups during two one-half hour observations. Two ordinal scale scores which reflect the degree of individualized teaching were obtained for each student. One score was derived from the ratings given on the basis of evidences observed. The second score was ob-

tained during an interview between the student and the observer to determine individualized teaching evidences initiated by the student during the student teaching experience. Results from the ITA provided information for answering the question: do project students engage in individualized teaching to a greater extent than control students?

The ITA was developed locally after a review of similar instruments revealed that none presently available was appropriate for project objectives. Since this is the first occasion in which the ITA has been used for research purposes. An evaluation of rater reliability, internal consistency, and item discrimination analysis follows.

Rater reliability was determined by a rank order correlation for Raters X and Y, and Raters X and Z on the observation section (Table 1). These correlations yielded a rho of .94 for Raters X and Y on this section, and a rho of .91 for Raters X and Z. Both correlations were significant beyond the .01 level for a one-tailed test. These reliability estimates suggest that data obtained from the observations section of the ITA are consistent and independent of rater differences.

An analysis of internal consistency, or test homogeneity, was also made. Since the ITA is a unifactor test in that it appears to measure one trait and is not a speed test, it is possible to consider a measure of internal consistency as an expression of test reliability by using Cronbach's Coefficient Alpha (a variation of the Kuder-Richardson for non-parametric data). Using observations data secured by Rater X (Table 2), a coefficient Alpha of .77 was obtained, suggesting acceptable test reliability.

The ITA was also evaluated by means of item discrimination analysis. Using a technique developed by Likert (Archives of Psychology, 1932, 140, 44-53) for determining if scale items are differentiating, it was found that approximately one-half of the items discriminate between low and high scores on this test (Table 3). Items which do discriminate relate to:

a. the extent to which students proceed from one task to the next without teacher direction;
b. the extent to which student movement is allowed in the classroom;
c. the extent to which interdiscussion occurs in the classroom;
d. the variety of instructional materials used;
e. the extent to which materials used provide for the range of achievement present in the classroom;
f. the variety of methods used for evaluation; and
g. the extent to which students engage in self-evaluation.

Of these items, a, c, f and g, are the most discriminating.

TABLE 1

RATER RELIABILITY (SPEARMAN RHO) ON OBSERVATION SECTION OF ITA FOR RATER X AND Y (CONTROL GROUP) AND RATER X AND Z (EXPERIMENTAL GROUP)

	Rater		Rank			
Student	X	Y	X	Y	d	d^2
Control Group						
AA2	25.0	23.0	9.0	9.0	0	0
BB_1	13.5	14.0	1.0	1.5	-0.5	.25
BB_2	15.0	15.0	2.0	3.0	-1.0	1.00
CC_1	24.5	22.0	7.5	8.0	-.5	.25
CC_2	18.5	14.0	5.0	1.5	3.5	12.25
DD_1	33.5	34.0	14.0	14.0	0	0
DD_2	19.0	18.0	6.0	5.0	1.0	1.00
E_2E	29.5	27.0	13.0	12.5	.5	.25
FF_1	24.5	20.5	7.5	6.0	1.5	2.25
FF_2	26.5	25.0	11.0	10.0	1.0	1.00
GG_1	18.0	21.5	4.0	7.0	-3.0	9.00
GG_2	26.0	26.0	10.0	11.0	-1.0	1.00
HH_1	27.0	27.0	12.0	12.5	-0.5	.25
HH_2	16.5	16.5	3.0	4.0	-1.0	1.00
Experimental Group	X	Z	X	Z	d	d_2
A_2	21.5	20.5	4.5	4.0	.5	.25
B_1	20.5	21.0	3.0	5.0	-2.0	4.00
B_2	24.5	24.0	7.0	6.5	.5	.25
C_1	19.0	17.0	2.0	1.0	1.0	1.00
C_2	27.5	27.0	11.0	11.5	-.5	.25
D_1	27.0	26.5	10.0	8.5	1.5	2.25
D_2	17.0	19.0	1.0	3.0	-2.0	4.00
F_2	26.5	27.0	9.0	11.5	-2.5	6.25
F_1	23.0	24.0	6.0	6.5	-.5	.25
F_2	29.5	30.5	13.0	14.0	-1.0	1.00
G_1	30.0	30.0	14.0	13.0	1.0	1.00
G_2	28.0	26.5	12.0	8.5	-3.5	12.25
H_1	21.5	18.5	4.5	2.0	2.5	6.25
H_2	26.0	23.5	8.0	6.0	2.0	4.00

Σd^2=29 (Raters X-Y) rho = .94 (beyond .005 level, one-tailed test)

Σd^2=43 (Raters X-Z) rho = .91 (beyond .01 level, one-tailed test)

TABLE 2

CHRONBACK'S COEFFICIENT ALPHA FOR INDIVIDUALIZED ANALYSIS
(OBSERVATION BY RATER X)

Item	ΣX_i	ΣX^2_i	$\bar{X}_i$	S^2_i
1	31.0	73.00	2.20	.37
2	27.0	53.00	1.92	.10
3	21.0	35.00	1.50	.25
4	23.5	44.25	1.67	.37
5	22.5	40.25	1.60	.26
6	21.5	38.25	1.53	.39
7	30.5	72.25	2.17	.46
8	24.0	48.00	1.71	.50
9	27.0	55.00	1.92	.24
10	28.0	59.00	2.00	.21
11	25.5	53.25	1.82	.49
12	30.0	69.50	2.14	.39
13	30.0	71.00	2.14	.50
	ΣX_T = 341.5	ΣX^2_T = 841.75	$\bar{X}_T$ = 24.39	S^2_T = 15.25

Coefficient Alpha= .77

TABLE 3

ITEM DISCRIMINATION ANALYSIS OF INDIVIDUALIZED TEACHING ANALYSIS
(THREE HIGHEST AND LOWEST SCORES)

	High Group				Low Group					
Item	G1	F2	G2	Σ	D2	C1	B1	Σ	D	D/3
1	3.0	2.0	2.0	7.0	2.0	2.0	2.0	6.0	1.0	.33
2	2.0	2.0	2.0	6.0	2.0	1.0	2.0	5.0	1.0	.33
3	2.0	1.0	1.0	4.0	1.0	2.0	1.0	4.0	0	0
4	2.0	2.0	1.0	5.0	1.0	1.0	1.5	3.5	1.5	.50
5	2.0	2.0	2.5	6.5	1.0	1.0	1.0	3.0	3.5	1.16*
6	2.0	3.0	1.5	6.5	1.0	2.0	2.0	5.0	1.5	.50
7	3.0	3.0	3.0	9.0	1.0	2.0	2.0	5.0	4.0	1.33*
8	2.0	1.0	3.0	6.0	1.0	1.0	2.0	4.0	2.0	.66
9	2.0	2.0	3.0	7.0	1.5	2.0	1.0	4.5	2.5	.83*
10	2.0	2.5	2.0	6.5	1.0	1.0	1.5	3.5	3.0	1.00*
11	2.0	3.0	2.0	7.0	1.0	1.0	2.0	4.0	3.0	1.00*
12	3.0	3.0	3.0	9.0	2.0	1.5	1.5	5.0	4.0	1.33*
13	3,0	3.0	2.0	8.0	1.5	1.5	1.0	4.0	4.0	1.33*

*Discriminating items

In subsequent refinements of the test, range of choices for each item will be increased from three to five in order to provide a more sensitive scale. Consideration will also be given to the inclusion of more items, thereby providing for measurement of more aspects of individualized teaching behavior; and longer observation periods.

No attempt was made to determine validity of the ITA. However, the forementioned analyses indicate that it is a promising research instrument which should be subjected to further construct validity research.

Raw data obtained from the Minnesota Teacher Attitude Inventory and the Individualized Teaching Analysis were submitted to the Wilcoxon matched-pairs signed-ranks test for two correlated samples to determine the significance of the difference between various scores. One additional analysis, the Sign test (which is also designed to compare two correlated samples) was applied to raw data for experimental and control MTAI post-test scores.

Objective 4 - Current modifications of the Winthrop program in elementary education based on the project experience serve as evidence of the degree to which this objective has already been realized. Specific recommendations appear in this report under CONCLUSIONS AND RECOMMENDATIONS.

FINDINGS OF THE STUDY

General Information

The nature of this study is such that only one objective (objective three which relates to whether project students indicate, in attitudes and behaviors more facility for individualizing instruction than do control students) requires statistical treatment of the data. Evaluation of the extent to which the other three objectives were met is accomplished through the use of descriptive evidences.

Findings for Objective One

Objective 1 was designed to individualize instruction for a pilot group of fourteen elementary education majors in one-half of their senior-year program. Primary evidence of the extent to which this objective was reached is described in a comparison of the curriculum unit format and the operational procedures with the criteria for individualized learning which met our operational definition of individualized teaching (see Appendix F).

Curriculum Units

The process by which curriculum units were developed appears on page 4 . All curriculum units appear (as revised by students) in Appendix A .

Operational Procedures

Further substantiation of attainment is found in a description of the operational procedures of the program. Successful individualization of instruction requires a high degree of self-direction on the part of the learner. For this project objective to be reached it was necessary to move systematically through various types of student involvement.

Individualization of course work--Fall 1969

Step 1

Prior to the beginning of the Fall 1969 semester, project students were notified by mail of the time and place of a first planning meeting. The Winthrop schedule of classes had listed the time for the course Health 303 (college designation of the project Context Area 1) as "to be announced." This first short meeting of the project students in the fall was devoted to their involvement in determining the time for seminar meetings. Scheduling difficulties resulted in seminars being held one afternoon a week for about a three hour period.

Step 2

A portion of the first seminar meeting was devoted to further

explanation of the project. However, for the major part of the three hours a discussion of what was to be accomplished in Context Area 1 ensued. Consideration was given to why a study of health was included in the teacher education program at Winthrop. Following this discussion, the project students identified topics which they felt should be pursued throughout the semester. The points brought out in this meeting included every area which had been planned by the instructor plus two which had been overlooked.

Step 3

During the second seminar meeting, project students compared the curriculum units (which had been given to them at the end of the previous meeting for this purpose) with the objectives they had listed and specified any changes which they felt should be made regarding activities or topics which were suggested.

Step 4

For the third seminar meeting, project students (using a form which had been prepared for this purpose) determined whether each of the activities which had been agreed upon would best be accomplished by: each individual student; teaching teams; grade level teams; feedback teams; or the inquiry group.

Step 5

In preparation for the fifth seminar meeting each student (using a form which had been prepared for this purpose) listed the activities he would undertake to reach each objective and the methods by which his progress toward each objective should be evaluated.

Step 6

A chart summarizing this information was prepared for the next seminar. Following a discussion of the chart, several students revised the lists they had made in favor of activities and evaluative methods which they felt were superior to some which they had originally listed.

Step 7

By mid-semester each student had scheduled the date by which each behavioral objective should be completed. This scheduling was done individually, or as a member of a team, or as a member of the inquiry group, depending upon the nature of each objective.

At this point in their program, each project student had been involved in establishing for the subject matter content of their study:

1. the time (day and hour) when he would meet;
2. the objectives toward which he would work;
3. the activities he would undertake to reach his objectives;
4. the number of students which should be involved in accomplishing each objective;
5. the evaluative measures which should be used to determine his progress;
6. changes in his program in light of new information; and
7. the rate at which he would accomplish tasks.

For the most part, these decisions were cooperative ones (to the extent that the students discussed most decisions in the inquiry group for "approval") despite the fact that many undertakings did not involve the entire inquiry group. Only one student had moved away from this "mold" by mid-semester in the Fall. This student made the "break" after the following incident. She had prepared a chart on communicable diseases and one on first aid procedures as described in a curriculum unit. Since both charts were poorly done, the student was asked to come in for an individual conference. When asked why these two charts were not of a quality in keeping with her usual work she replied that she felt it was a waste of time to do the one on first aid since she held an instructor's rating. In answer to a question as to whether her background in knowledge of communicable diseases was equally as strong, she replied that it was not. The instructor then asked why hadn't she omitted the first aid chart and put her time on the communicable diseases chart since it had been clearly stated and re-emphasized that no activity should be undertaken just as busy work. The student, with a look of complete astonishment, said simply, "I didn't think you really meant it." Two days later she turned in a comprehensive chart on communicable diseases.

Although similar changes in the other project students were less dramatic, by the beginning of the spring semester, fifteen of the sixteen participants reflected a more independent, self-directed feeling. One student continued to require peer "approval" and/or instructor direction throughout the entire year.

Individualization of participation in the school--Fall 1969

Corresponding student involvement was occurring concurrently in the area of participation in assigned classrooms. Early in the fall semester the project students decided in inquiry group seminar that they should spend at least two hours a week in the school. Each teaching team had the responsibility of planning the time for this participation with the directing teacher in light of the teacher's schedule and the time available by each student (project students were carrying a full load of fifteen semester hours only three hours of which were in conjunction with the project). Actual participation time for the semester ranged from the minimum of two hours per week for one teaching team to a maximum of eight hours by one student in another teaching team.

After a group discussion of the types of activities which might be undertaken during their participation, teaching teams planned specific activities with their directing teachers. The number and types of activities engaged in differed greatly from one student to another due to differences among: students; directing teachers; grade levels; groups of children; organizational patterns of the school; and the times of day available for participation.

During this time, project students were not observed by the college coordinator unless they requested an observation in order to obtain assistance on a problem they had encountered. Most requests

for observation dealt with instructional problems in a specific content field or problems of classroom control. One exception to this occurred when the college coordinator, sensing planning difficulties on the part of one project student, asked the student to arrange a day and time for an observation.

Removal of grade barriers

In the original project plans no provision had been made for changing Winthrop College grading procedures, therefore students had to be given a grade of A, B, C, D or F for their semester's work in Context Area 1. Late in November, one seminar was devoted to developing a form for evaluation of the project and for self-evaluation by the student of her own accomplishment (the form and a summary of the evaluation are available upon request. During this discussion, project students requested that they be allowed, in the spring semester, to take Context Area 2 (Ed. 515) and Context Area 3 (Ed. 523) on a Pass-Fail basis. Winthrop College policy on this matter stated that a student could elect to take one course on a pass-fail basis each semester. Student teaching was offered only on a pass-fail basis for all students.

The reasons given by the project students for this request was that in the on-going program throughout the semester they had become accustomed to evaluating their performance in relation to objectives which they had set. They felt that a grade received for course work must include some indication of the individual's performance in relation to that of other students. Furthermore, despite all efforts to counteract the negative aspects of grading (no grade was given to any assignment--evaluation was accomplished through self-evaluation, comments written by the instructor on papers turned in, individual conferences, and, where appropriate, peer evaluation) the students felt that their sincere efforts to share information with each other were less effective than they might have been if the competitive aspect of grading had been removed. (NOTE: Project students were given permission to take all courses on a pass-fail basis in the spring semester.)

Individualization of course work--Spring 1970

The first seminar of the spring semester was held on the day that classes resumed after Christmas holidays. At the last meeting of the previous semester it had been decided that the first seminar in the spring would be used as a planning session. Within the three hour period the project students had identified the following concerns and had decided at least tentative proposals for each.

1. How much time should be spent in the schools for the first half of the semester?
2. On what days and at what time should seminar meetings be held for Context Areas 2 and 3?
3. Which two weeks of the second half of the semester should be set aside for each of the teaching team members to have complete charge of the classroom to which they were assigned?

4. What planning would be needed by the team members and the directing teachers toward these two weeks?
5. When should the trip to Florida be made (to visit the elementary and middle schools selected for their organizational patterns and uses of team teaching)?

By the next day the students had contacted their directing teachers regarding participation for the first half of the semester. When they arrived for the seminar on the second day, each student had written modifications for curriculum units in context area 2 (these had been given to them the day before). The instructor had also written modifications which, for the most part, changed objectives to read either "the teaching team" or "the grade level team" rather than "the learner" on the assumption that individual requirements were too great as the curriculum units had been written. Only three of the changes suggested by the instructor were accepted by the group. The others were rejected on the grounds that they felt that the objectives should be accomplished by the individual student rather than as a shared responsibility. Before the day ended dates had been set for the first six inquiry group discussions which required preparation on the part of individual students and/or one of the various teams.

The sessions held in January by Dr. Cyril Mill, Program Director for Consultation, National Training Laboratories Institute for Applied Behavioral Science, marked a definite turning point in the program. Although active participation by project students in inquiry group discussions had increased from the beginning of the fall semester, it was not until after Dr. Mill had met with the group that total participation became the rule rather than the exception. Throughout the remainder of the semester, students referred frequently to the change that they had felt after they had spoken openly of fears, apprehension and concerns that they experienced in group situations. It was a source of astonishment for them to realize that, in a project directed toward providing for individual differences, there were many "group similarities" -- particularly in the realm of the affective domain.

The "new" differences which did come to light were mainly in regard to how each member viewed his own silence or loquacity. In group discussions the talkative ones seemed no longer to fear the silences, while the previously reticent members entered into discussions with little hesitancy.

As the second semester progressed, project students continued to assume greater responsibility for the functioning of the program, changing the instructor's role to one of consultant and guide.

Individualization of participation in the school--spring 1970

The amount of self direction achieved by the students by the beginning of their full-time student teaching experience (approximately midway of the spring semester) is reflected in the curriculum units for Major Context Area #4 (Appendix A). Only two educational

objectives and a total of twelve behavioral objectives were required. Even more indicative of growth in self-direction is the nature of the behavioral objective included in this context area since the majority of these objectives provide a general description of a task to be accomplished, leaving specific planning to the learner.

Comparison of Curriculum Unit Format and Operational Procedures with Criteria for Individualized Learning

A comparison of the previously described curriculum unit format and the operational precedures of the project with the criteria for individualized instruction presented in A Construct for Individualizing Instruction (Appendix F) indicates that each of the following criteria was met.

The instructional program was individualized in that:

1. the characteristic of each student played a definite role in the selection of objectives, sequence of study, choice of materials and procedures. Moreover students added, omitted and modified objectives.
2. the time spent by each student was determined by his background in the area and his personal goals rather than by the clock.
3. the progress of each student was measured by his performance with his specific objectives rather than with the performance of other students (this was more successfully accomplished during the spring semester when a pass-fail rating replaced regular grades).

The instructional program was individualized in that STUDENTS:

1. had available, in writing, the objectives toward which they were working--objectives which they had been involved in developing.
2. worked toward a variety of objectives.
3. used a variety of materials and procedures.
4. talked freely with each other about their work.
5. pursued their objectives individually, in small groups, and with the instructor (as well as in large group seminars).

The instructional program was individualized in that the INSTRUCTOR:

1. encouraged to students to have a variety of objectives.
2. spent more time answering questions of individuals and small groups than lecturing to the entire group.
3. involved students in determining the materials they would work with and the procedures they would follow.

Two statements appearing in A Construct for Individualizing Instruction do not appear above. These two statements which pertain to movement in the classroom were excluded since students met as a total group only for seminar discussions. Individual and small group activities were free of any restriction on movement. Even in seminar discussions, students moved without restriction. Most movement in these situations related to personal as opposed to academic objectives (i.e., movement to adjust temperature in room or blinds, to better see or hear, or even to get a cup of coffee which was made available

in the room by the project students).

These evidences indicate that the pilot project group of fourteen elementary majors did engage in a program which was characterized by a high degree of individualization.

Findings for Objective Two

Objective 2 proposed to provide a model in individualization for study by the School of Education faculty. Transactions which contribute to objective 2 include the following.

1. In the fall of 1969 each School of Education faculty member was given a copy of the project proposal for study.
2. On November 5, 1969 a faculty meeting was devoted primarily to a progress report on pilot project activities by Dr. McClendon.
3. Because of interest in the model, four of the staff in elementary education attended the Model Elementary Teacher Education Dissemination Conference sponsored by AACTE and the University of Georgia in Atlanta on November 16-18, 1969.
4. During the year, much informal discussion of the project took place between members of the School of Education faculty and project staff.
5. Sample curriculum units have been distributed to faculty members on request to serve as guides for those who wish to use a similar format in their courses.
6. The Elementary Education Committee has prepared a Program Projection which will serve as a position statement for five and ten year planning of the Department of Elementary Education. This projection incorporates stategy and organizational procedures which were demonstrated in the pilot project.
7. During the first term of the 1970 summer session, one School of Education faculty meeting will be held in which Dr. McClendon will report on project activities and findings and present a video-tape of the final evaluation of the project by the students.
8. The final written report will be made available to the entire School of Education faculty.
9. Selected video-tapes developed during the pilot project will be available to the faculty for review.

These evidences indicate that provisions have been made for the School of Education faculty to keep informed of project procedures and activities.

Of particular interest to any faculty is the evaluation of a program by the students involved. The following statements summarize project participants views regarding certain aspects of the program which they felt were of particular importance in providing a climate conducive to effective learning.

1. Class size was mentioned in every evaluation made during both the first and second semesters. The class size of sixteen enabled all students to take part in total inquiry group discussions even though two members of the group stated that they had never before spoken out in a regular class setting and three other members had made only limited oral contributions in previous classes. The project students felt that in their class of sixteen they were able to learn each class member by name early in the fall semester and felt freer in scheduling conferences with the instructor.

2. Remaining with the same group of students for a full year of work ranked high as a positive contributory factor. Participants stressed their willingness to be more open as they came to feel at ease in the group. They felt that time was "saved" when, at the beginning of the spring semester, they did not have to establish their roles in a new group as was the case in previous semesters.
3. Working with one faculty member for a full year or a year and a half (each project student had taken their required reading course with the staff member who served as instructor for the project) emerged as a strength of the program from the student's point of view. Established role identity was a factor here, too, as well as an elimination of the time loss that often occurs due to the need to establish effective communication between an instructor and a new group. Most important, according to the students, the continuity which was inherent in the project design was enhanced by leadership from a single staff member throughout the year.
4. Evaluation at mid-term during the spring semester and again at the end of that semester brought out that the students felt their efforts were more productive second semester than first due, in part, to the totality of the program. In the fall semester, when they were taking four courses not related to the project, their study was fragmented much as it had been throughout their entire college program. The inter-relatedness of the second semester provided an opportunity for unifying coordinated tasks to be accomplished for mathematics, measurement in reading, individualizing instruction and student teaching.
5. Replacement of Winthrop College's regular grading practices with a Pass-Fail plan for the second semester was fully endorsed by each project participant. However, they felt that this option would not have been as influential a factor if they had not been in the program during the first semester. In their opinion, future students should also be "involved in a program" (as opposed to being "enrolled in courses") before being given a Pass-Fail option for a full semester's work.
6. The informality of the organizational structure for the year of study and the group feeling which developed were given such a high rating by project students that they should be listed first. The listing in this position results from the writer's opinion that the first five points mentioned contributed greatly to the emergence of group feeling. Undoubtedly, sessions held with Dr. Mill heightened group feeling. The organizational structure became less formal throughout the year as students assumed greater responsibility and the instructor's role approached that of guide and "fellow-investigator."
7. A frequently mentioned strength of the program identified in evaluations by project participants was the team or group approach to learning. They felt an increasing satisfaction in working with different groups to accomplish tasks for which each member of the group had a common purpose (i.e.; tasks of concern in a single classroom were undertaken by the teaching team assigned to that classroom; scope and sequence identification of skills in various subject areas were delegated to grade level teams; topics more general in nature were selected by individual students on the basis

of interests or specific needs and reported in Inquiry Group seminars by feedback teams). Being a member of a teaching team afforded opportunity for continuous peer evaluation and discussion of classroom teaching experiences.

8. While project students felt that a three-hour session once a week was often "too long" during the fall semester, they reported that two- and three-hour sessions held twice a day in the spring seldom were long enough to accomplish what needed to be done. In the year of working with these students it was readily apparent to the instructor that the greater the extent of student involvement, the longer the period of daily class time was needed.
9. Each student in the project expressed particular satisfaction with their opportunity to participate in an elementary school classroom for the entire year. Direct application of course study resulted in far greater insight than usually occurs at the undergraduate level. School administrators who came to the campus to interview seniors commented on the quality of the questions asked by the project students with whom they talked. In inquiry group seminar discussions, contributions by at least three-fourths of the students were of a caliber usually found only in graduate courses.

The transactions of the faculty and student evaluation of the project are offered as supporting evidence for the accomplishment of objective 2. The entire report of the project is, in fact, the primary source of substantiation.

Findings for Objective Three

Objective 3 was intended to provide evidence as to whether project students indicated, in attitudes and behaviors, more facility for individualizing instruction during the student teaching phase of the program than did control students. Such evidence required the testing of five hypotheses.

Null Hypothesis 1

Experimental students do not differ appreciably from control students in attitudes toward teaching as measured by the MTAI at the beginning of the project.

The Wilcoxon matched-pairs signed-ranks test was applied to determine the significance of the difference between the experimental and control groups at the beginning of project (Table 4). Differences are not significant (T = 35), and the null hypothesis is accepted.

Null Hypothesis 2

Experimental students do not differ appreciably in attitudes toward teaching as measured by the MTAI at the beginning and end of the project.

Comparison of pre- and post-test MTAI scores for the experimental group (Wilcoxon) yields a difference (T = 3) beyond the .005 level (Table 5). The null hypothesis must be rejected.

Null Hypothesis 3

Control students do not differ appreciably in attitudes toward teaching as measured by the MTAI at the beginning and end of the project.

MTAI pre- and post-test scores (Table 6) for the control group subjected to the Wilcoxon results in a difference which is not significant (T = 40), thus the null hypothesis is accepted.

Null Hypothesis 4

Experimental students do not reveal more favorable attitudes toward teaching as measured by the MTAI at the end of the project than do control students.

When the Wilcoxon test is applied to MTAI post-project scores (Table 7), the difference is not significant (T = 20), and the null hypothesis is accepted.

Examination of the raw data (Table 7) reveals that the Wilcoxon was unduly influenced by one or two rankings which created a spuriously high T. Therefore the Sign test was applied to determine the acceptability of the above hypothesis. Although the relative magnitude of the differences is not considered it was felt that the variability of the distributions and the subsequent effect on the ordinal values warranted the use of this test. The Sign test result is significant (p of .046), using a one-tailed analysis (x = 3).

TABLE 4

SIGNIFICANCE OF THE DIFFERENCE BETWEEN RAW SCORES FOR MATCHED PAIRS ON THE MTAI PRE-TEST (WILCOXON SIGNED-RANKS TEST)

Pair	Experimental	Control	Difference +	Difference -	Rank
1	41	41	0	0	-
2	28	28	0	0	-
3	61	95	34		8
4	56	81	25		5
5	74	51		-23	-4
6	86	50		-36	-9.5
7	84	80		-4	-2
8	97	70		-27	-6
9	52	99	47		12
10	64	61		-3	-1
11	95	59		-36	-9.5
12	62	78	16		3
13	96	52		-44	-11
14	66	95	29		7

$N_{S-R} = 12$ $\Sigma + = 35$ $\Sigma - = -43$ $T = 35$

TABLE 5

SIGNIFICANCE OF THE DIFFERENCE BETWEEN MTAI PRE- AND POST-TEST RAW SCORES FOR EXPERIMENTAL GROUP (WILCOXON SIGNED-RANKS TEST)

Student	Pre-test	Post-test	Difference +	Difference -	Rank
A2	41	83	+42		10.5
B1	28	21		-7	-2
B2	61	103	42		10.5
C1	56	100	44		12
C2	74	92	18		7
D1	86	106	20		8
D2	84	112	28		9
E2	97	105	8		3.5
F1	52	97	45		13
F2	64	74	10		5.5
G1	95	92		-3	-1
G2	62	62	0	0	--
H1	96	106	10		5.5
H2	66	74	8		3.5

$N_{S-R} = 13$ $\Sigma + = 88$ $\Sigma - = -3$ $T = 3$

$p < .005$ (one-tailed test)

TABLE 6

SIGNIFICANCE OF THE DIFFERENCE BETWEEN MTAI PRE- AND POST-TEST RAW SCORES FOR CONTROL GROUP (WILCOXON SIGNED-RANKS TEST)

Student	Pre-test	Post-test	Difference +	Difference -	Rank
AA2	41	44	4		2.5
BB1	28	9		-19	-8
BB2	95	72		-23	-10
CC1	81	87	6		4
CC2	51	73	22		9
DD1	50	32		-18	-7
DD2	80	84	4		2.5
EE2	70	25		-45	-14
FF1	99	97		-2	-1
FF2	61	86	25		11
GG1	59	91	32		13
GG2	78	92	14		6
HH1	52	79	27		12
HH2	95	105	10		5

$N_{S-R} = 14$ · $\Sigma + = 65$ $\Sigma - = -40$ $T = 40$

TABLE 7

SIGNIFICANCE OF THE DIFFERENCE BETWEEN RAW SCORES FOR MATCHED PAIRS ON THE MTAI POST-TEST (WILCOXON SIGNED-RANKS TEST), AND SIGN TEST

Pair	Experimental	Control	Difference +	Difference -	Rank	Sign Test
1	83	44		-39	-11	-
2	21	9		-12	-2.5	-
3	103	72		-31	-9.5	-
4	100	87		-13	-4	-
5	92	73		-19	-5	-
6	106	32		-74	-12	-
7	112	84		-28	-7	-
8	105	25		-80	-13	-
9	97	97	0	0	--	0
10	74	86	12		2.5	+
11	92	91		-1	-1	-
12	62	92	30		8	+
13	106	79		-27	-6	-
14	74	105	31		9.5	+

WILCOXON $N_{S-R} = 13$ $\Sigma + = 20$ $\Sigma - = 67$ $T = 20$

SIGN TEST (one-tailed) $x = 3$ $N = 13$ $P = .046$

TABLE 8

SIGNIFICANCE OF THE DIFFERENCE FOR MATCHED PAIRS ON OBSERVATION AND INTERVIEW RAW SCORES FOR ITA (HIGHEST SCORE PER ITEM BY EITHER RATER)

	Observation				Interview			
Pair	E	C	D	Rank	E	C	D	Rank
1	25.5	25.5	0	--	31.0	21.5	9.5	11
2	21.0	14.0	7.0	8	24.5	13.5	11.0	12.5
3	26.0	16.0	10.0	11	28.5	21.0	7.5	10
4	20.5	25.0	-4.5	-5	29.0	22.0	7.0	8
5	28.0	18.5	9.5	10	29.0	18.0	11.0	12.5
6	28.0	34.5	-6.5	-6.5	31.0	35.5	-4.5	-3.5
7	19.0	19.0	0	--	21.0	20.0	1.0	1
8	27.5	30.5	-3.0	-3	26.0	19.0	7.0	8
9	24.0	24.5	-.5	-1	29.5	25.0	4.5	3.5
10	31.0	27.0	4.0	4	27.5	21.0	6.5	6
11	32.0	21.5	10.5	12	33.0	21.5	11.5	14
12	28,5	26.5	2.0	2	33.5	29.5	4.0	2
13	21.5	28.0	-6.5	-6.5	33.0	28.0	5.0	5
14	26.0	17.0	9.0	9	29.0	22.0	7.0	8

(Observation) $N_{S-R} = 13$ $\Sigma+ = 56$ $\Sigma- = -22$ $T = 22$

(Interview) $N_{S-R} = 13$ $\Sigma- = -3.5$ $T = -3.5$ (beyond .005 level, for one-tailed test)

The Sign test is a less powerful test in that there is a need to increase sample size in order for the Sign test to equate the Wilcoxon in strength for testing the null hypothesis -- reaching a rejection region. Despite this reduction in power it is possible to reject the null hypothesis. This supports the notion that experimental students have more favorable attitudes toward teaching than control students at the end of the project, and that the Wilcoxon test is, in this case, adversely affected by distribution variability.

Null Hypothesis 5

Experimental students do not individualize instruction (as measured by the ITA) in student teaching to any greater extent than control students.

The Wilcoxon test was applied to two scores on the ITA: observation score and interview score (Table 8)

a. Examination of results from observation data reveals that the difference is not significant (T = 22), and the null hypothesis is retained.
b. The second analysis, on the data obtained from the interview section of the ITA, resulted in a highly significant difference (.005 level of confidence for a one-tailed test) in favor of the experimental group and the null hypothesis is rejected.

There appears to be some highly significant variable between observation and interview situations to account for the discrepancy described above. One explanation offered is that rater scoring for the ITA observation covered only a brief period time (one-half hour) during which the student teacher was engaged in a direct instructional activity. Of the items which were found to be discriminating on the ITA (see page 8), several were unlikely to be observed in the half-hour observation (movement in classroom, extensive interdiscussion, methods of evaluation, and student self-evaluation). Interview ratings included behaviors which occurred throughout the student teaching period.

The findings for Objective 3 indicate that project students indicated, in both attitudes and behaviors, more facility for individualizing instruction during the student teaching phase of the program than did control students. The design of the MTAI is such that these findings include support of the assumption that experimental students were more open to interpersonal relationships and more sensitive to teacher-child relationships than control students at the end of the project even though the two groups did not differ in these traits at the beginning of the project.

Findings for Objective Four

Objective 4 was designed to prepare recommendations for modification of the Winthrop program in elementary education based on the project experience.

The following represent current modifications of the Winthrop program in teacher education which are an outgrowth of the pilot project.

1. The Program Projection prepared by the Elementary Education Committee is most significant in that several aspects of the pilot project (individualized programs, team teaching, and a longer period of undergraduate internship) are reflected in this position paper which will serve as a planning base for the next few years.
2. Several aspects which were tested in the pilot project (use of a context area approach to curriculum development, emphasis on individualized instruction, teaching teams, flexible planning, and an "on-the-job" component for most substantive courses) have been incorporated into the EPDA School-College Cooperative Masters Degree Program for Training Guidance-Instruction Specialists which begins June 1, 1970.
3. Two requests for team teaching in the undergraduate elementary education program (beginning in the fall semester of 1970) were prompted by feedback from the pilot project. These requests have been approved.
4. The pilot project approach will be studied by members of our Honors Council as plans are made for departmental honors in elementary education.

These developments indicate that this objective was realized, in that the pilot project has stimulated thought and action in the direction of immediate program modification. Specific recommendations stemming from the study are reported under CONCLUSIONS AND RECOMMENDATION.

Summary of the Study

The first objective, that of individualizing instruction for a pilot group of elementary education majors was accomplished by means of the curriculum unit structuring of the program and the operational procedures utilized. The curriculum unit structure for the major context area facilitated individualized learning in that students self-selected (within an overall framework) objectives and activities. Operational procedures for the project were designed to foster acceptance of greater responsibility for his own progress on the part of the student, as a basis for individualized learning. The functioning of project students throughout the program indicated substantial growth in self-direction. Comparison of the project with A Construct for Individualizing Instruction indicates that the project students were engaged in a program which was characterized by a high degree of individualization.

A model in individualization has been accomplished as a result of the study. Aspects of the study, such as: curriculum unit planning; greater student involvement; reduction in class size; flexible blocks of time for class meeting; and interrelated learning experiences will require extensive study by the School of Education faculty in terms of feasibility on a larger scale. Limited implementation of a curriculum unit approach to study is already underway.

Results of the Minnesota Teacher Attitude Inventory pre- and post-tests indicate that students participating in the project showed a significant change (beyond the .005 level) in positive attitudes toward teaching. No increase in openness and sensitivity is indicated by the control students. The difference between these two groups on MTAI post-test scores is not significant when tested by the Wilcoxon. This finding is not consistent with the first three findings which indicated that:

a. the two groups did not differ in attitude toward teaching (MTAI) at the beginning of the project;
b. the experimental group showed a marked (beyond the .005 level) positive change in attitude (MTAI); and
c. the control group revealed no significant change in attitude (MTAI).

An examination of the raw data uncovered two rankings which might have adversely affected the Wilcoxon by distribution variability. The Sign test was then applied to the difference between the experimental and control group MTAI scores with the result that the null hypothesis is rejected. Experimental students do have more favorable attitudes toward teaching and have a greater degree of openness and sensitivity (as measured by the MTAI) than do control students at the conclusion of the study.

While the observation section of the ITA does not indicate that the project students used individualized teaching procedures to any greater extent than the control group, the interview section shows a highly significant difference (beyond the .005) in favor of the

experimental group. The brief period of time included in the observation ratings (one half hour) may account for the discrepancy between the observation and interview findings.

Numerous recommendations for modifications of the Winthrop program in elementary education have emerged as a result of this study. Several have already been incorporated. Others will require extensive study by the School of Education faculty before any attempt is made toward implementation.

Individualized Teaching Analysis

Tests of rater reliability and internal consistency suggest that the ITA developed for this project is a promising instrument for research on individualized teaching and should be refined through further research.

CONCLUSIONS AND RECOMMENDATIONS

The Pilot Project for Individualizing Elementary Teacher Education was an outgrowth of a determination on the part of the School of Education faculty at Winthrop to improve the presently existing program. Major objectives of this project for this purpose were that of providing a model of individualization for study by the School of Education faculty and preparation of recommendations for modifications of the Winthrop program.

The entire report is submitted toward the former objective. Therefore this section of the report is addressed to conclusions and recommendations in fulfillment of the latter objective.

Findings of the study indicate that it was possible to provide a program of individualized instruction in a small scale program (only sixteen students were involved in the project). The means by which this was accomplished include the utilization of curriculum units which prescribe behavioral objectives within major context areas, and a systematically planned procedure devised to develop increased self-direction on the part of the student.

Inasmuch as students participating in the project exhibited, in attitudes and behaviors, more facility for individualizing instruction during their student teaching than did their control group counterparts, it seems imperative that various facets of the experimental program be examined in an effort to isolate variables within the project which may be related to this functioning. Once this is accomplished, further consideration should be given to the feasibility of incorporating these aspects into the Winthrop elementary teacher education program on a larger scale.

Evaluations of the project by participating students direct attention to the nine features of the program.

a. Class size of sixteen students encouraged extensive inter-discussion and interaction.
b. Association with the same students for a full academic year also contributed to increased discussion and interaction.
c. Direction from a single faculty member throughout the year not only fostered interaction but also enhanced continuity.
d. Interrelated study in a unified program during the second semester seemed to result in greater productivity for the amount of energy expended.
e. Replacement of existing grading practices with a pass-fail plan for the second semester paved the way for more effective sharing of information once students had become "involved" in the program.
f. The informal climate present in the program heightened group feeling and cohesiveness.
g. A team or group approach to learning complemented the individual study pervading the program.

h. Length of time appropriate for group sessions varied by extent of student involvement in the on-going program.
i. Early participation in an elementary school setting enabled students to temper theory with experience.

Recommendations

The following recommendations are proposed for consideration by members of the School of Education staff involved in the elementary teacher education program. They represent an attempt on the part of the writer to incorporate information gained as director of the project as well as evaluations by student participants.

1. The curriculum unit approach to course structuring should be explored as a means of:
   a. developing a vehicle for greater student involvement;
   b. identifying interrelated aspects of the present program;
   c. proposing possibilities of further interrelated program development.

   Such a study should be more productive if undertaken within the framework of a Point of View regarding elementary teacher education which has been developed by members of the Department of Elementary Education and presented to other members of the staff for examination, recommendations, and approval.

2. A critical examination of present scheduling practices should be made to consider the possibility of including features deemed relative by the project students, to conditions more conducive to learning.
   a. A drastic redution in class size. Ideally this would be accomplished by a reduction in teacher/student ratio. Since the likelihood of the School of Education faculty doubling within the next few years is remote, consideration should be given to the utilization of one mass class per week in combination with sections (of not more than twenty students each) which would meet once a week for one hour and forty minutes, or twice a week for fifty minute periods.
   b. Attention should be given to scheduling blocks of class time other than the present fifty minutes (for Monday, Wednesday, Friday classes) and seventy-five minutes (for Tuesday, Thursday classes), with the possibility of increasing the length of each session as the semester progresses and student involvement increases.
   c. Whenever possible, the twenty students assigned to a section for one education course should be assigned, as a group, to other education courses taken that semester.

3. Present utilization of staff should be reviewed as a basis for determining the feability of incorporating the following into the program.

a. Members of the staff who teach various sections of the same course should work as a team to coordinate mass lectures and small group meetings.
b. Members of the staff who teach the same twenty students various education courses in a given semester should work as a team to coordinate interrelated aspects of these curriculum areas.
c. In these courses with multiple sections for which one mass lecture a week would be utilized one staff member should be assigned to coordinate the program and given a one-fourth reduction in course load.

4. Attempts to improve the program must reflect concern for experiences in the elementary classroom.
   a. The desirability of placing students in pairs as teaching teams for their student teaching experience should be examined. (Note: Consideration would also have to be given to directing teachers in terms of their qualifications and willingness to work with two student teachers.)
   b. In the absence of a Laboratory School at Winthrop College, every effort should be made to establish a contractual agreement with the local public school system and surrounding school systems to place students in a classroom setting for at least two hours per week in the semester (preferably the two semesters) preceding the student teaching semester.

APPENDICES

APPENDIX A

Major Context Area One

EDUCATIONAL GOAL: The learner provides a comprehensive program toward the development of good mental and physical health in his classroom.

CODE	EDUCATIONAL OBJECTIVES
1:0	The learner identifies objectives of health education in the elementary school.
1:1	The learner understands the basic principles of healthful living in the community and the school and existing interrelationships.
1:2	The learner identifies major school health problems and possible solutions to these problems.
1:3	The learner provides necessary first aid in his classroom and attempts to maintain an environment which is free of health and safety hazards.
1:4	The learner has a thorough knowledge communicable diseases in terms of: symptoms, modes of transmission, procedures for control and prevention.
1:5	The learner capably: administers appropriate health inventories; maintains thorough health records; refers students for needed examinations by specialists; analyzes and utilizes health information.
1:6	The learner provides a comprehensive, interrelated program of health and health education.
1:7	The learner strengthens his health program by capitalizing on school, home and community cooperation.
1:8	The learner provides a comprehensive, interrelated program of recreation, physical education, and leisure education.
1:9	The learner maintains a classroom climate which fosters good mental health and competently identifies common "signs" of emotional difficulties.

Curriculum Unit

Major Context Area: #1 Code: 1:0 Topic: Objectives of health education in the elementary school

Behavioral Objectives:

1:01 The learner lists objectives of health education at his grade level, grouping these objectives under the headings:
- a. cognitive domain
- b. affective domain
- c. psychomotor domain

1:02 The learner provides a copy of these objectives for every member of the inquiry group.

1:03 In inquiry group seminar, the learner participates in an evaluation of stated objectives in terms of:
- a. appropriateness for the grade level and topic
- b. comprehensiveness

Treatment:

(1). Using library resources each student prepares objectives for health education and distributes copies to each member of the inquiry group.

(2). In inquiry group seminar, each student participates in a critical evaluation of stated objectives.

(3) Each student places a copy of his objectives (revised as needed) in her notebook.

Materials:

Clarke, H. H. and J. F. Haag. Health and Physical Education for the Elementary School Classroom Teacher. Englewood Cliffs, N. J.: Prentice-Hall, 1964. Chapter 6.

Guide for the Teaching of Health: K through 12. S.C. State Department of Education. Chapter III.

Kilander, H.F. School Health Education. (2nd Ed.) Englewood Cliffs, N.J.: MacMillan, 1968. Chapters 5, 7, and 22.

Turner, C. E., C. M. Sellery and S.L. Smith. School Health and Health Education. (5th ed.) Saint Louis: C.V. Mosby Co., 1966. Chapters i, ii, Vii, and xviii.

Evaluation:

(1) Individual: (a) adequacy of objectives (b) quality of participation in inquiry group seminar.

Curriculum Unit

Major Context Area: #1 Code: 1:1 Topic: Basic principles of healthful living in:
(1) community; and
(2) school

Behavioral Objectives:
1:11 The learner lists basic principles of healthful living in community and school.
1:12 The learner discusses these principles effectively in inquiry group seminar.

Treatment:
(1). Using library resources (professional books and periodicals), each student prepares two lists of principles of healthful living (1) community, (2) school) to guide further study in context area #1.
(2). In inquiry seminar, these lists are printed and displayed on charts discussed and compared. A 'master' list is developed which will guide preparation of flow charts showing 'ideal' school and community organizational plans for school-community cooperation in healthful living and health education. (Lists placed in context area #1 notebook kept by each student).

Materials:
Turner, C. E., C. M. Sellery, and S. L. Smith. School Health and Health Education. (5th ed.) Saint Louis: C.V. Mosby Co., 1966. Chapters i, ii, vii, and xviii. (Textbook).
Kilander, H. F. School Health Education. (2nd ed.) Englewood Cliffs, N.J.: Macmillan, 1968. Chapters 5, 7, and 22.
Clarke, H. H. and J. F. Haag. Health and Physical Education for the Elementary School Classroom Teacher. Englewood Cliffs, N.J.: Prentice-Hall, 1964. Chapter 6.
Information on 'flow' charts.
Consultant: Dean Jack Boger

Evaluation:
(1) Individual: (a) Involvement in seminar task (b) quality of contributions to 'master' list.
(2) Group: (a) quality of task-oriented behavior (b) quality of product (master list).

Curriculum Unit

Major Context Area: #1 Code: 1:2 Topic: School health problems and solutions

Behavioral Objectives:

1:21 The learner collects research data on the incidence of school health problems.

1:22 The learner prepares a two-way table (or other diagrammatic representation) showing health problems and school environmental arrangements for treatment or solution.

Treatment:

(1) Each student prepares a list of health problems with supporting statistical data on incidence relating these problems to library resource information on school-based treatments or solutions.

(2) In inquiry seminar lists are compared and discussed. Each student amends his list as he desires (insert in notebook).

Materials:

Textbook. Chapter iv, v, vi, x, xi, Appendix A, and Appendix B.
Haag, J.H. School Health Program. (2nd ed.) New Yrok: Holt, Rinehart, & Winston, 1965. Chapters 2, 3, 4, 6, and 7.
Periodicals: Journal of School Health; American Journal of Health, Physical Education and Recreation.

Evaluation:

(1) Individual: (a) inclusiveness of list of problems/solutions
(b) effectiveness of presentation in writing

(2) Group: (a) discussion of principles of learning employed in curriculum unit 1:2 (b) suggested alternatives for achieving the same objectives (c) discussion of relationships between behavioral objectives and 'cognative' learning.

Curriculum Unit

Major Context Area: #1 Code: 1:31 Topic: Selected topics on school accidents, prevention, and first aid

Behavioral Objectives:

1:311 The learner prepares for his own use a guide book of first aid measures needed by the teacher for classroom reference.

1:312 The learner identifies safety and health hazards in an elementary school.

Treatment:

(1) Inquiry group decides on procedure for sharing information on the following topics:
   (a) Human and environmental causal factors related to school accident occurence and measures to be taken for accident prevention.
   (b) Emergency techniques and procedures for spontaneous application when needed.
   (c) Recognition of health hazards and anticipation of accidents.
   (d) Emotional factors within the child or group which contribute to risk-taking or effect intelligent reasoning and actions.
   (e) Methods which promote attitudes within the child of personal responsibility for safety and awareness of hazards in his personal environment.

(2) Information on topics in (1) is dissimated.

(3) Each student prepares and exhibits his guidebook (insert in notebook).

(4) Each student surveys an actual elementary school and records health and safety hazards. Findings are compared in inquiry group. Recommendations for reduction of hazards are prepared by the group.

Materials:

Textbook. Chapters ii, ix, xi, and Appendix B.

Kilander, H. F. School Health Education. (2nd ed.). Englewood Cliffs, N.J.: Macmillan, 1968. Chapters 12, 13, and Appendix D.

Williams Brownell, and Vernier. The Administration of Health Education and Physical Education (6th ed.). Saunders, 1966. Chapters 11, 21, and 22.

Local elementary school: observation.

Evaluation:

(1) Individual: each student rates a fellow student's guidebook on following criteria: organization; use as a reference guide.

(2) Group: (a) each feedback team constructs an instrument for evaluating presentation of topics in treatment (1) and conducts joint evaluation; (b) modes of presentation (treatment 1) are classified and their effectiveness is discussed - alternative modes of presentation are discussed.

Curriculum Unit

Major Context Area: #1 Code: 1:32 Topic: Health education (hazards and accident prevention)

Behavioral Objectives:

1:321 The learner prepares (with his teaching partner) a teaching unit on safety.

1:322 The learner observes a unit in use in a classroom setting and/or role playing situation and evaluates its effectiveness.

Treatment:

(1) Each feedback team presents one of the following topics to the inquiry group:
   (a) Planning for health instruction in the area of safety.
   (b) Using a conceptual approach to health instruction in safety.
   (c) Sources and materials for a health unit on safety.
   (d) Individualizing instruction in a unit on safety.

(2) Each teaching team prepares a small unit (3 or 4 days) on safety.

(3) The learner observes a unit being used in a classroom setting or in a role playing situation. Videotapes are recorded and analyzed. Each feedback team performs a different analysis from the video-tapes (interaction analysis; sociometric analysis; movement & freedom analysis; and convergent-divergent cognitive interaction) and feeds back to the inquiry group.

(4) Copies of selected units prepared in (2) are reproduced for each student. Each student receives a copy of the four analyses performed in (3). (place in notebook)

Materials:

Textbook. Chapters xiii, xiv, xv, and xvi.
Kilander, H.F. School Health Education. (2nd ed.). Englewood Cliffs,: N.J.
Macmillan, 1968. Chapters 12, 13, 16, and Appendix D.
ERIC, Ed 020 883, Day Teacher's Handbook of Resources for Teaching Health, K-6, 1966.
Local elementary school classroom; 3-4 day unit.
Video-tape recorder; duplicator.

Evaluation:

(1) Individual: (a) self-evaluation of one's group role; (b) self-analysis of micro-teaching on video-tape

(2) Group: (a) feedback teams discuss problems of cooperative unit construction and report their recommendations to the inquiry group; (b) the inquiry group evaluates the 4 types of analyses performed by the feedback teams in treatment (3).

Curriculum Unit

Major Context Area: # 1 Code: 1:4 Topic: Health education (communicable diseases)

Behavioral Objectives:

1:41 The student prepares a check-list for detecting signs of illness and disease through observation of behavior and appearances.

Treatment:

(1) Each feedback team presents a video-taped cooperative 'lecture' on one of the following topics:
   (a) Communicable diseases, manner of transmission, process of control prevention techniques, and treatments.
   (b) Nature of disease transmission, germ theory, and available immunizations.
   (c) Nature of illness with its inherent physical and emotional complexities.
   (d) Environmental factors which intensify disease spread; scientific research contributing to disease control.

(2) Each student prepares his own check-list of illness and disease for use in classroom teaching. (place in notebook)

Materials:

Textbook. Chapters v, viii, ix, and x.
Haag, J.H. School Health Program. (2nd ed.). New York: Holt, Rinehart, & Winston, 1965. Chapters 6,7,15, and Appendix B.
Video-tape recorder.

Evaluation:

(1) Individual: each member constructs a participation scale and rates his contribution to the feedback team video-taped presentation.

(2) Group: inquiry group analyzes taped lectures and discusses effective procedures used by feedback teams in presenting topics and their implications for teaching rudiments of disease control in the elementary school classroom.

Curriculum Unit

Major Context Area: #1 Code: 1:51 Topic: School health inventories, examinations, and health Records

Behavioral Objectives:

1:511 The learner administers to at least five children, the standard health tests required of teachers.

1:512 The learner prepares a health inventory to be used with children he teaches,

1:513 The learner completes (for at least three children) the South Carolina State Health Record used in the State's schools.

Treatment:

(1) The inquiry group determines a plan for preparing a health inventory form and prepares it. (insert in notebook)

(2) A plan is worked out by the inquiry group to enable each student to learn administration of vision, hearing, and dental screening tests. (students may practice on each other) (instructions are placed in notebooks)

(3) Each student visits his classroom and learns from the teacher the procedure for keeping school health records. Reports are made to the inquiry group (copy of school health record is inserted in notebook)

Materials:

Textbook. Chapters iv, v, vii, ix, and xix.
Audiometer, visual screening apparatus.
State health record forms.
Haag, J.H. School Health Program, (2nd ed.). New York: Holt, Rinehart, & Winston, 1965. Chapters 2,3,4, and Appendix A.
Consultant: Miss Katharine Adams

Evaluation:

(1) Individuals (a) Accuracy and completeness of health test adminis. (b) Comprehensiveness of health inventory (c) Accuracy of S. C. State Health Record

(2) Group: (a) each student checks his health inventory form against an acceptable standard; (b) inquiry group provides check-off sheet for acceptable administration of screening tests and determines when each student meets the acceptable standard for administration.

Curriculum Unit

Major Content Area: #1 Code: 1:52 Topic: Practical exercise: administering informal health inventory.

Behavioral Objectives:
1:521 The learner uses the informal health inventory prepared for 1:512 with a child and reports findings and recommendations to the child's teacher.

Treatment:
(1) Each student arranges to give the informal inventory to one child (includes, among other things, checks on posture, dentition, vision, hearing, eating and rest habits).
(2) The student reports results and recommendations to the child's teacher.
(3) Students discuss the experience in inquiry group meeting and share 'do's' and 'don'ts.'

Materials:
Locally prepared informal health inventory.
Local elementary school child.
Audiometer, and visual screening apparatus.

Evaluation:
(1) Individual: each student's results are checked by the instructor, further exercises are provided in individual cases as needed to assure satisfactory performance.
(2) Group: the group reacts to each student's report.

Curriculum Unit

Major Context Area: #1 Code: 1:6; Topic: Essentials of a good school health program.

Behavioral Objectives:

1:611 The learner independently prepares an evaluation form for evaluating the school health program (preventive measures and services needed for immediate health needs).

1:612 Evaluation forms are analyzed in feedback teams and each team prepares a revised form that satisfies the team.

Treatment:

In inquiry group, the four feedback team forms are compared and discussed. Copies of all four forms are made available to each student (insert in notebook).

Materials:

Textbook. Chapters is ix and xix.
South Carolina State Standards for Elementary Schools.
Southern Association Standards for Elementary Schools.
Kilander, H.F. School Health Education. (2nd ed.). Englewood Cliffs, N.J.: Macmillan, 1968. Chapters 2,3,5, and 22.
Haag, J.H. School Health Program. (2nd ed.). New York: Holt, Rinehart, & Winston, 1965. Chapters 5,6,7,8,9,12, and 22.
Other guides to evaluation of school programs as suggested by the instructor.

Evaluation:

(1) Individual: each student checks the form developed for 1:611 against the feedback team form (or forms) judged acceptable and notes discrepancies.

(2) Group: each feedback team rates the four evaluation forms and discusses the effectiveness of each as a guide to school authorities in developing a good school health program.

Curriculum Unit

Major Context Area: #1 Code 1:62 Topic: Essentials of a good school health education program

Behavioral Objectives:

1:621 The learner participates in the preparation of a curriculum guide for a good school health education program.

Treatment:

(1) Each student independently reviews previous curriculum units dealing with health education and conducts further study of curriculum, methods and materials in health education.
(2) Inquiry group plans an effective procedure for preparing a curriculum guide in health education which can be used by the students in their full-time teaching.
(3) The guide is prepared according to the plan determined by the inquiry group, (insert guide in notebook)

Materials:

Textbook. Chapters xiii, xv, xvi, and xix.
State Department of Education Standards for Elementary Schools.
SACS Standards for Elementary Schools.
Curriculum guides in health education (materials center).
Kilander, H.F. School Health Education. (2nd ed.). Englewood Cliffs, N.J.
Macmillan, 1968. Chapters 16, 19, 20, 21, and Appendix E.
Haag, J.H. School Health Program. (2nd ed.). New York: Holt, Rinehart, & Winston, 1965. Chapters 13, 14, 15, 16, 17, and 22.
Review of Education Research. (December), 1968.

Evaluation:

(1) Individual: each member uses the participation scale to rate his contribution to planning and constructing the guide (a new or revised participation scale may be used, if desired).
(2) Group: the inquiry group secures criteria for developing curriculum guides and evaluates its efforts against this guide.

Curriculum Unit

Major Context Area: #1 Code: 1:7 Topic: School, home, and community cooperation in health and health education.

Behavioral Objectives:
1:71 The learner participates in a seminar on the topic.

Treatment:
(1) Each feedback team plans for participation in a seminar on school, home, and community cooperation in health and health education. (refer to 'master list' developed in 1:1)
(2) The inquiry group arranges for the seminar, invites and briefs outside consultants. Arrangements are made for seminar proceedings to be written.
(3) The seminar is held and proceedings are written. Flow charts showing school-community organizational plans are proposed and included in the proceedings. (Insert in notebook).

Materials:
Textbook. Chapter xviii.
Other readings as appropriate.
'Master list' developed in 1:1
Consultants to seminar (possibly: a school nurse, and interested parent, a public health services representative, etc.)

Evaluation:
(1) Individual: each student notes and rates a fellow student's participation in the seminar and passes the rating along to the other student for study.
(2) Group: (a) inquiry group discusses criteria for a successful seminar and judges the strengths and weaknesses of this seminar against the criteria; (b) the proceedings are similarly evaluated.

Curriculum Unit

Major Context Area: #1 Code: 1:81 Topic: The school's program in recreation, physical education, and leisure education

Behavioral Objectives:

1:811 The learner prepares a brief curriculum guide in these areas for later use in full-time teaching.

Treatment:

(1) Consultants conduct seminars on the topic.
(2) Each feedback team is given one of the following topics to present to the inquiry group:
    (a) Recreation in the elementary school program (aims, activities).
    (b) Physical education in the elementary school program.
    (c) The elementary school's responsibility in leisure education.
    (d) Organization of the classroom and school for recreation, physical education, and leisure education.
(3) Each student prepares his own version of a curriculum guide in these areas and places in his notebook for future reference.

Materials:

Textbook. Chapters ii, xiii, and xvi.
Library references on recreation, physical education, and leisure education.
Consultant: Miss Jean Mundy, Miss Brenda Clayton

Evaluation:

(1) Individual: the student satisfies himself that the curriculum guide be a useful teaching resource.
(2) Group: (a) using a prepared evaluative check sheet, each feedback team's presentation is rated by all the students and the ratings are discussed; (b) suggestions for strengthening presentations are discussed.

Curriculum Unit

Major Context Area: #1 Code: 1:82 Topic: Participation experience in recreation or physical education

Behavioral Objectives:

1:821 The student plans and carries out a small unit of work in recreation or physical education with a group of elementary children.

Treatment:

(1) Each student plans with his teaching partner and the supervising teacher a unit of work in physical education or recreation for a group of between 6 and 15 children.
(2) The student submits a written lesson guide to be approved by the supervising teacher.
(3) The practical exercise covers at least 10 sessions with the group.
(4) Each student selects an activity of at least 15 minutes to be videotaped by the team member.
(5) An evaluative project report is written by the student at the conclusion of the practical exercise.

Materials:

The student's curriculum guide prepared in 1:811.
Local elementary school class group.
Consultants: Dr. Polly Ford, Miss Jean Mundy.
Supervising teacher.

Evaluation:

(1) Individual: the student's written evaluative project report indicates successful and unsuccessful plans and suggestions for future activities based on the results of this laboratory expeience.
(2) Group: (a) inquiry group members write critiques of th videotaped teaching sequences of each student's demonstration teacing and submit them directly to that student; (b) several seleced videotaped sequences are analyzed by the consultants in inqury group meeting.

Curriculum Unit

Major Context Area: #1 Code: 1:9 Topic: The concept of mental health in teaching

Behavioral Objectives:

1:91 The learner identifies some of the common 'signs' of emotional difficulties.

1:92 The learner plans a sample lesson or series of lessons on a mental health topic.

Treatment:

(1) A consultant conducts a seminar on the topic.
(2) The inquiry group prepares a plan for detecting departures from mental and emotional health of children in the school setting.
(3) Each feedback team practices observational techniques for identifying children who need further study of their emotional and social adjustment (use video-tapes or local classrooms).
(4) Each feedback team presents a 'generalized approach' to classroom experiences in mental health topics.
(5) The learner prepares a sample lesson or lesson series based on one of the generalized approaches presented in (4).
(6) Each teaching team uses one of the sample lessons in an actual classroom situation.

Materials:

Textbook. Chapters v and vi.
Mental Health in Modern Education. Fifty-fourth Yearbook of the National Society for the Study of Education, Part I. Chicago: Univ. of Chicago Press, 1955. Allinsmith, W., and Geothals, G.W. The Role of Schools in Mental Health. 1962.
Video-tapes or classroom observations.
Consultant: Mrs. Helen Abell

Evaluation

(1) Individual: each student rates his lesson plan against a criteria check list for lesson plan construction.
(2) Group: feedback teams analyze observational data of each member and suggest strengths and weaknesses in observational procedures.

MAJOR CONTEXT AREA TWO

Instructional Objective

Educational Goal: The learner provides a comprehensive program in reading based on thorough evaluation.

Code	Educational Objectives
2:0	The learner has extensive knowledge regarding the nature of reading.
2:1	The learner utilizes appropriate measures in the assessment of health factors.
2:2	The learner utilizes comprehensive measures in the assessment of mental factors.
2:3	The learner utilizes appropriate measures in the assessment of interests and goals.
2:4	The learner utilizes comprehensive measures in the assessment of reading skills.

Curriculum Unit

Major Context Area: #2 Code: 2:01 Topic: Nature of reading (Definitions)

Behavioral Objectives:

2:011 Two teaching teams present to the inquiry group, a brief statement on reading defined as "producing correct vocal responses" or "obtaining meaning," giving at least three persons associated with that meaning.

2:012 Each student participates in inquiry group seminar discussion of the definitions of reading.

2:013 A student describes, in Inquiry Group seminar, the role of either sensory (hearing-vision), perceptual (discrimination-decoding) or cognitive (comprehension) processes in the performance of the reading task.

2:014 Each student participates in inquiry group discussion to develop a general definition of reading.

Treatment:

(1). Using library resources (professional book and periodicals) two teaching teams prepare two definitions of reading and present the information in inquiry group seminar.

(2). Following an inquiry group discussion of the preceding topic, three students describe the role of various processes (sensory, perceptual, cognitive) in the performance of the reading task.

(3). A general definition of reading is developed through inquiry group discussion.

Materials:

Artley, A. Sterl. "What Is Reading?" Pamphlet published by Scott, Foresman & Co., 1965.

Carter, Homer L. J. and Dorothy McGinnis. Teaching Individuals to Read. Boston: D.C. Heath and Co., 1962. Pages 7-11.

Clymer, Theodore. "What is 'Reading'?: Some Current Concepts," Innovation and Change in Reading Instruction. Sixty-seventh Yearbook of the National Society for the Study of Education, Part II. Edited by Helen M. Robinson. Chicago: University of Chicago Press, 1968. Chapter I.

Flesch, Rudolph. Why Johnny Can't Read. New York: Harper & Brothers, 1955. Pages 1-23.

Learning to Read: A report of A Conference of Reading Experts. Princeton: Educational Testing Service, 1962. Pages 4-5.

Shepherd, David L., editor. Reading and the Elementary School Curriculum. International Reading Association, 1969. Pages 3-8.

Shores, J. Harlan. "The Meaning of Reading as a Social Skill," Educational Leadership, 22: 373-376; March 1965.

Spache, George D. Reading in the Elementary School. Boston: Allyn & Bacon, Inc., 1964. Chapter I.

Evaluation:

(1). **Individual:**

(a). Quality of definition (2:011) and process described (2:013)

(b). Quality of participation in seminar discussion (2:014)

(2). **Group:**

Quality of general definition of reading (2:014)

Curriculum Unit

Major Context Area: #2 Code: 2:02 Topic: Nature of reading (Readiness)

Behavioral Objectives:

2:021 Two teaching teams present a description of the reading readiness concept embodied in each of the two definitions of reading (see 2:011).

2:022 The learner participates in inquiry group seminar discussion of the concept of readiness embodied in each definition of reading.

2:023 Each grade level team writes a description of reading readiness which includes a list of the experiences, abilities and skills which a student should have to read successfully at their grade level.

2:024 The learner participates in inquiry group discussion to develop a description of reading readiness.

Treatment:

(1). Using library resources (professional book and periodicals) two teaching teams present a description of the readiness concept embodied in each of the two definitions of reading.

(2). Following an inquiry group discussion of the preceding topic each teaching team writes a description of reading readiness appropriate for their grade level.

(3). Each student participates in inquiry group development of a general definition of reading and description of reading readiness. These general statements are reproduced and placed in context area #2 notebook kept by each student.

Materials:

Bond, Guy L. "Readiness for Reading in the Middle Grades," Reading Promotion Bulletin No. 22. Chicago: Lyons and Carnahan.

Bond, Guy L. "Readiness for Reading in the Primary Grades," Reading Promotion Bulletin No. 21. Chicago: Lyons and Carnahan.

Bond, Guy L. and Eva Bond Wagner. Teaching the Child to Read. New York: Macmillan Co., 1966. Chapter 2.

Hallman, Arthur W. Principles and Practices of Teaching Reading. (2nd ed.) Columbus, Ohio: Charles E. Merrill Publishing Co., 1967. Pages 25-46.

Morrison, Ida E. Teaching Reading in the Elementary School. New York: Ronald Press Co., 1968. Chapter 3.

Smith, Henry P. and Emerald V. Dechant. Psychology in Teaching Reading. Englewood Cliffs, N.J.: Prentice Hall, Inc., 1961. Chapter 4.

Spache, George D. Reading in the Elementary School. Boston: Allyn & Bacon, Inc., 1964. Chapter 2.

Evaluation:

(1). Individual:
Quality of participation in seminar discussions (2:022 and 2:024)

(2). Teaching Team:
Extent of insight revealed in presentation (2:021)

(3). Grade level Team:
Comprehensiveness of description of readiness (2:023)

(4). Group:
Quality of general description of readiness (2:024)

Curriculum Unit

Major Context Area: #2

Code: 2:03

Topic: Nature of Reading (Types: Developmental, Functional, and Recreational)

Behavioral Objectives:

2:0311 Each teaching team writes a definition of developmental reading, including the goals of developmental reading.

2:0312 Each teaching team lists four typical reading activities for developmental reading at their grade level.

2:0313 Each teaching team lists at least three examples of developmental reading material appropriate for their grade level.

2:0321 Each teaching team writes a definition of functional reading, including the goals of functional reading.

2:0322 Each teaching team lists four typical reading activities for functional reading at their grade level.

2:0323 Each teaching team lists at least three examples of functional reading material appropriate for their grade level.

2:0331 Each teaching team writes a definition of recreational reading, including the goals of recreational reading.

2:0332 Each teaching team lists four typical reading activities for recreational reading at their grade level.

2:0333 Each teaching team lists at least three examples of recreational reading material appropriate for their grade level.

2:0341 The learner participates in inquiry group discussions of the objectives listed above and helps to develop general statements pertaining to each.

Treatment:

(1). Using reading clinic and library resources (professional books and periodicals)
   (a) each teaching team writes definitions of, and goals of developmental, functional, and recreational reading.
   (b) each teaching team lists four typical reading activities for each of these types of reading at their grade level.

(2). Each student helps to develop general statements of goals, skills, and activities for each type of reading in inquiry group seminar. These statements are reproduced and placed in context area #2 notebook kept by each student.

Materials:

(1). Material developed by the South Carolina State Department of Education.

(2). Witty, Paul A., A.M. Freeland, and E. H. Grotberg. The Teaching of Reading. Englewood: D. C. Heath & Co., 1966. Pages 7-13.

(3). Other sources available in library.

(4). Curriculum guides.

Evaluation:
(1). Individual: Quality of definitions (2.0311, 2:0321 and 2:0331)
(2). Teaching Team:
(a) Quality of definitions (2:0311, 2:0321 and 2:0331)
(b) Appropriateness of activities (2:0312, 2:0322 and 2:0332) and materials (2:0313, 2:0323 and 2:0333)
(3). Group: Quality of general statement about types of reading.

Curriculum Unit

Major Context Area: #2

Code: 2:05

Topic: Nature of Reading (Point of View)

Behavioral Objectives:
2:051 The learner writes a Point of View on reading which includes a general statement of: the bases for this view (nature of the society, child development characteristics, reading needs of the future); the learning conditions which are necessary; and the types of materials which are needed.
2:052 The learner participates in an inquiry group seminar analysis and discussion of each Point of View.
2:053 The learner revises his Point of View as needed and places it in his Context Area #2 notebook.

Treatment:
(1). Using library resources as needed each student writes a Point of View.
(2). In inquiry group seminar each student discusses the various view points presented and evaluates his own Point of View.
(3). Each student revises his Point of View and places it in Context Area #2 notebook.

Materials:
Figurel, J. Allen (ed.) Forging Ahead in Reading. Proceedings of the Twelfth Annual Convention, Volume 12, Part I. Newark, Delaware: International Reading Association, 1968. Pages 187-205.
Smith, Nila Banton. American Reading Instruction. Newark, Delaware: International Reading Association, 1968. Pages 317-321.

Evaluation:
Individual:
(a). Adequacy of final statement of Point of View (2:053)
(b). Quality of participation in seminar discussion (2:052)

Curriculum Unit

Major Context Area: #2

Code: 2:04

Topic: Nature of Reading (Retardation)

Behavioral Objectives:

2:041 The learner writes a description of various types of reading retardation, listing possible causes of retardation in each type.

2:042 In inquiry group seminar, the learner participates in the development of a general description of various types of reading retardation and possible causes.

2:043 Given simulated data on a classroom, each teaching team selects children who could be categorized under each type of reading retardation, giving the specific information on which this judgment was based.

2:044 Each teaching team lists specific action which should be taken with each child listedfor 2:043.

2:045 Each student participates in inquiry group seminar discussion of children listed for 2:043, reasons for listing them, and action which should be taken with each child.

Treatment:

(1). Using library sources (books and periodicals) each student writes a description of various types of reading retardation and the causes of each.

(2). In inquiry group seminar each student contributes to the development of a general description and a statement of causes of reading retardation.

(3). After examining simulated data on a classroom, each teaching team identifies cases of reading retardation, lists possible courses of action for each, and participates in an inquiry group seminar discussion of this information.

Materials:

Harris, Albert J. "Diagnosis and Remedial Instruction in Reading," Innovation and Change in Reading Instruction. Sixty-seventh Yearbook of the National Society for the Study of Education, Part II. Edited by Helen M. Robinson. Chicago: University of Chicago Press, 1968. Chapter 5.

Harris, Albert J. (ed.) Readings on Reading Instruction. New York: David McKay Company, Inc., 1963. Pages 434-461.

Heilman, Arthur W. Principles and Practices of Teaching Reading. (2nd ed.) Columbus, Ohio: Charles E. Merrill Publishing Co., 1967. Chapter 15.

Robinson, Helen M. "Corrective and Remedial Instruction," Development In and Through Reading. Sixtieth Yearbook of the National Society for the Study of Education, Part I. Edited by Nelson B. Henry. Chicago: University of Chicago Press, 1961. Chapter 20.

Materials: (cont'd)

Strang, Ruth, Constance M. McCullough, and Arthur E. Traxler. The Improvement of Reading. (4th ed.) New York: McGraw-Hill Book Co., 1967. Chapters 12, 13, 14, 15, 16.

Witty, Paul A., A. M. Freeland, and E. H. Grotberg. The Teaching of Reading. Englewood: D. C. Heath & Co., 1966. Chapters 13 and 14.

Evaluation:

Individual:

(a). Inclusiveness of description and causes of reading retardation (2:041).

(b). Quality of participation in seminar discussions (2:042 and 2:045).

(c). Self-evaluation of quality of information given for 2:043 and 2:044 following inquiry group seminar discussion of these topics.

Curriculum Unit

Major Context Area: #2

Code: 2:11

Topic: Assessment of health factors

2:111 Refer to Context Area #1, Code 1:5, Behavioral Objective 1:9.

2:112 Refer to Context Area #1, Code 1:6, Behavioral Objectives 1:10, 1:11, 1:12.

2:113 Refer to Context Area #1, Code 1:7, Behavioral Objective 1:13.

2:114 Refer to Context Area #1, Code 1:8, Behavioral Objective 1:14.

Treatment: Refer to Context Area #1, Codes 1:5-1:8, Behavioral Objectives 1:9-1:14.

Materials: Refer to Context Area #1

Curriculum Unit

Major Context Area: #2

Code: 2:21

Topic: Assessment of Mental Factors (Mental Ability)

Behavioral Objectives:

2:211 Following presentation by a resource person, each feedback team writes a critique of standardized intelligence tests including:
- a. types of tests
- b. purpose of each test type
- c. strengths of each test type
- d. weaknesses of each test type

2:212 Each feedback team prepares a description and evaluation of informal means of estimating mental ability.

2:213 The learner reads at least one article on the topic in preparation for inquiry group seminar discussion of intelligence tests and the disadvantaged child.

2:214 The learner participates in inquiry group seminar discussion of purposes, strengths, and weaknesses of standardized intelligence tests and informal measures of mental ability.

2:215 Given simulated data on a classroom, the learner compares intelligence test scores, reading achievement levels, and other pertinent data in preparation for inquiry group discussion on these topics.

2:216 The learner participates in inquiry group seminar discussion of intelligence test scores, reading achievement levels, and other pertinent data taken from simulated data on a classroom.

2:217 The learner participates in the administration and scoring of standardized intelligence tests.

Treatment:

(1). Using library resources each feedback team:
- (a). writes a critique of standardized intelligence tests
- (b). prepares a description and evaluative review of informal estimation of mental ability

(2). Each student:
- (a). reads on intelligence testing and the disadvantaged child
- (b). participates in inquiry group seminar discussion on measures of mental ability
- (c). examines simulated data on a classroom, comparing intelligence test scores, reading levels, and other pertinent information
- (d). participates in inquiry group seminar discussion of simulated data described above.
- (e). helps to administer and score standardized intelligence tests.

Materials:

Buros, Oscar K. (ed.) Mental Measurements Yearbooks. Highland Park, N.J.: The Gryphon Press.

Buros, Oscar K. Tests in Print. Highland Park, N.J.: The Gryphon Press.

Dinkmeyer, Don C. Child Development: The Emerging Self. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1965. Chapter 8.

Flynn, John T. Fundamentals of Measurement and Evaluation: A Programmed Guide. New York: American Book Co., 1969. Pages 69-95, 108-151.

Lindeman, Richard H. Educational Measurement. Glenview, Illinois: Scott, Foresman & Co., 1967. Chapters 1, 3 and 5.

Lyman, Howard B. Test Scores and What They Mean. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963. Pages 1-37, 119-132.

Mouly, George J. Psychology for Effective Teaching (2nd ed.). New York: Holt, Rinehart and Winston, Inc., 1968. Chapter 9.

Noll, Victor H. Introduction to Educational Measurement (2nd ed.). Boston: Houghton-Mifflin Co., 1967. Chapters 10, 14 and 15.

Wilson, Robert M. Diagnostic and Remedial Reading: for Classroom and Clinic. Columbus, Ohio: Charles E. Merrill Publishing Co., 1967. Pages 29-40.

Witham, Anthony P. (ed.) Reading and the Educationally Deprived. Proceedings of the 1966 EDL Reading Institutes. Huntington, N. Y.: Educational Developmental Laboratories, 1966. Pages 20-27, 33-37.

Consultant: Dr. Mary T. Littlejohn

Evaluation

(1). Individual:
  (a). Relevancy of article (2:213) to topic
  (b). Quality of participation in inquiry group seminar discussions on standardized intelligence tests (2:214) and simulated data (2:216)

(2). Feedback team: Quality of critique of standardized intelligence tests (2:211) and informal measures of mental ability (2:22)

Curriculum Unit

Major Context Area: #2

Code: 2:220

Topic: Assessment of Mental Factors (Mental Health: self-concept)

Behavioral objectives:

2:2201 The learner writes a definition of self-concept.

2:2202 The learner writes a statement of factors which are related to the development of the self-concept.

2:2203 The learner writes a statement on the relationship of the self-concept to academic achievement.

2:2204 The learner participates in an inquiry group seminar discussion of the self-concept, its development, and its relationship to academic achievement.

2:2205 Each feedback team lists ways in which situations and actions in the elementary school tend to foster an adequate or an inadequate self-concept in the child.

2:2206 Following visitations in the classrooms, each teaching team writes specific examples of situations and actions which might possibly have fostered adequate or inadequate self-concepts.

2:2207 The learner participates in inquiry group seminar on situations and actions in the elementary school which may foster the development of adequate or inadequate self-concepts.

Treatment:

(1). Using library resources each student writes:
  (a). a definition of self-concept
  (b). a statement of factors related to the development of the self-concept
  (c). a statement on the relationship of the self-concept to academic achievement

(2). In inquiry group seminar each student contributes to a discussion of each of these topics.

(3). Drawing on their own experiences and prior observations, each feedback team lists situations and actions in the elementary school which tend to foster adequate or inadequate self-concepts.

(4). After observing and participating in an elementary school, each teaching team writes specific examples of situations and actions which might possibly have fostered adequate or inadequate self-concepts.

(5). In inquiry group seminar each student contributes examples of situations and actions in the elementary school which may foster the development of adequate or inadequate self-concepts.

Materials:

Carter, Homer L.J. and Dorothy McGinnis. Teaching Individuals to Read. Boston: D. C. Heath and Co., 1962. Chapter 2.

Combs, Arthur I. (ed.) Perceiving, Behaving, Becoming. 1962 Yearbook of the Association for Supervision and Curriculum Development. Washington, D. C.: The Association, 1962.

Materials: (cont'd)
Dinkmeyer, D.C. Child Development: The Emerging Self. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1965. Chapters 3 and 7.
Dinkmeyer, Don and Rudolph Dreikers. Encouraging Children to Learn: the Encouragement Process. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963. Chapter 6.
Morrison, Ida E. Teaching Reading in the Elementary School. New York: Ronald Press Co., 1968. Pages 483-486.
Mouly, George J. Psychology for Effective Teaching (2nd ed.). New York: Holt, Rinehart and Winston, Inc., 1968. Chapters 4 and 19.
Waetjen, Walter B. and Robert R. Leeper (eds.). Learning and Mental Health in the School. 1966 Yearbook of the Association for Supervision and Curriculum Development. Washington, D.C.: The Association, 1966.
Wattenberg, William C. and Clare Clifford. "Relationship of Self-Concepts to Beginning Achievement in Reading," Child Development, 35:461-467; June, 1964. (ALSO: Durr, William K. Reading Instruction, Dimensions and Issues. Boston: Houghton Mifflin Co., 1967. Pages 50-57.
Witham, Anthony P. (ed.) Reading and the Educationally Deprived. Proceedings of the 1966 EDL Reading Institutes. Huntington, N.Y.: Educational Developmental Laboratories, 1966. Pages 20-27, 33-37.

Evaluation:
(1). Individual:
(a). Adequacy of statements relating to the self-concept (2:2201, 2:2202, and 2:2203)
(b). Quality of participation in seminar discussions (2:2204 and 2:2207)
(c). Self-evaluation of quality of information obtained through classroom observation (2:2206) following seminar discussion (2:2207)
(2). Feedback team: Inclusiveness of list (2:2205)

Curriculum Unit

Major Context Area: #2

Code: 2:221

Topic: Assessment of Mental Factors (Mental Health: Interpersonal Relationships -- Sociometrics)

Behavioral Objectives:

2:2211 A feedback team presents information on sociometrics in the elementary school (purposes, types, uses) in inquiry seminar.

2:2212 The learner participates in inquiry group seminar discussion of the use of sociometrics in the elementary school.

2:2213 Each teaching team develops a sociometric measure suitable for their grade level.

2:2214 Each teaching team administers their sociometric measure (revises as needed) to children in the classroom to which they are assigned.

2:2215 Each teaching team plots the sociometric information obtained in sociogram form.

2:2216 Each teaching team analyzes the sociometric data and lists: (a) implications of the findings; and (b) possible utilization of the findings.

2:2217 In inquiry group seminar, each student reports his findings and takes part in the analysis of the findings of other members of the inquiry group.

Treatment:

(1). Following a feedback team presentation on the topic, each teaching team develops a sociometric measure suitable for their grade level. (using additional library resources as needed).

(2). Following inquiry group seminar discussion, each teaching team administers their revised sociometric measure to children in the classroom to which they are assigned.

(3). Each teaching team plots the sociometric information obtained; analyses the data; and lists implications and possible utilization of the findings.

(4). Each student participates in an inquiry group seminar analysis of the findings.

Materials:

Byers, Loretta and Elizabeth Irish. Success in Student Teaching. Boston: D. C. Heath & Co., 1961. Chapters 5 and 9.

Dinkmeyer, Don C. Child Development: The Emerging Self. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1965. Chapters 3 and 6.

Dinkmeyer, Don and Rudolph Dreikers. Encouraging Children to Learn: the Encouragement Process. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963. Chapter 8 (SEE ALSO: page 53).

Harrison, Raymond H. and Lawrence E. Gowin. The Elementary Teacher in Action. San Francisco: Wadsworth Publishing Co., Inc., 1958. Pages 155-158.

Materials: (cont'd)

Mouly, George J. Psychology for Effective Teaching (2nd ed.). New York: Holt, Rinehart and Winston, Inc., 1968. Chapter 8.

Noll, Victor H. Introduction to Educational Measurement (2nd ed.). Boston: Houghton Mifflin Co., 1967. Chapter 13.

Evaluation:

(1). Individual: Quality of participation in seminar discussions (2:2212 and 2:2217)

(2). Teaching Team:

(a). Appropriateness of sociometric measure for purpose and grade level (2:2213)

(b). Clarity of sociogram (2:2215)

(c). Adequacy of analysis and suggestions for utilization of sociometric data (2:2216)

(3). Feedback team: Comprehensiveness of report on sociometrics (2:2211)

Curriculum Unit

Major Context Area: #2

Code: 2:222

Topic: Assessment of Mental Factors (Mental Health: signs of emotional difficulties)

Behavioral Objectives:

2:2221 Refer to Context Area #1, Code 1.9, Behavioral Objective (1:91)

Treatment and Materials:

Refer to Context Area #1, Code 1.9, Behavioral Objective (1:91)

Curriculum Unit

Major Context Area: #2

Code: 2:30

Topic: Measurement of factors related to reading achievement (Interest inventories)

Behavioral objectives:

2:301 A feedback team presents in inquiry group seminar, a report on interest inventories (describing the nature and possible utilization of interest inventories).

2:302 Each grade level team develops an interest inventory appropriate for their grade level.

2:303 Each grade level team develops a list suggesting ways in which the information obtained through an interest inventory might be utilized.

2:304 The learner discusses his inventory and its utilization effectively in inquiry group seminar.

2:305 Each grade level team makes any needed revisions in their interest inventory.

2:306 The learner administers the revised interest inventory to at least three students (one above average, one average, one below average in reading achievement)

2:307 The learner summarizes information obtained on the interest inventory for these three children.

2:308 The learner compares information obtained on the interest inventories for these three children, stating similarities and differences in an inquiry group seminar.

Treatment:

(1). Following a feedback team presentation on the topic each grade level team:
  (a). develops an interest inventory appropriate for their grade level
  (b). lists ways in which this information might be utilized

(2). In inquiry groups transparencies of the interest inventories and their utilization are compared and discussed. Selected inventories are reproduced to be placed in context area #2 notebook kept by each student.

(3). Using the revised interest inventory prepared by his grade level team, each student:
  (a). administers the inventory to at least three students (above average, average, below average)
  (b). summarizes information obtained

(4) In inquiry groups each student discusses effectively likenesses and differences found among the three children to whom she administered the inventory.

Materials:

Bond, Guy L. and Eva Bond Wagner. Teaching the Child to Read. New York: Macmillan Co., 1966. Pages 291-295.

Dinkmeyer, Don C. Child Development: The Emerging Self. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1965. Chapters 3 and 10.

Harris, Albert J. (ed.) Readings on Reading Instruction. New York: David McKay Company, Inc., 1963. Pages 330-357.

Mazurkiewicz, Albert J. New Perspectives in Reading Instruction. (2nd ed.). New York: Pitman Publishing Corp., 1968. Pages 428-447.

Morrison, Coleman (ed.). Problem Areas in Reading -- Some Observations and Recommendations. Providence, R.I.: Oxford Press, Inc., 1966. Pages 74-81.

Strang, Ruth. Diagnostic Teaching of Reading. New York: McGraw-Hill Book Co., 1964. Chapter 6.

Witty, Paul A. "The Role of Interest," Development In and Through Reading. Sixtieth Yearbook of the National Society for the Study of Education, Part I. Edited by Nelson B. Henry. Chicago: University of Chicago Press, 1961. Chapter 8.

Evaluation:

Individual:

(a). Quality of participation in seminar discussions (2:34 and 2.38).

(b). Comprehensiveness of interest inventory summary (2:37).

Teaching Team:

(a). Appropriateness of interest inventory for grade level (2:31 and 2:36).

(b). Inclusiveness of comparison of interest inventories for varying grades (2:32).

Feedback Team: Appropriateness and inclusiveness of list suggesting interest inventory information (2:33).

Curriculum Unit

Major Context Area: #2

Code: 2:32

Topic: Measurement of factors related to reading Achievement Purpose or Goals)

Behavioral Objectives:

2:321 A teaching team reports, in inquiry group seminar, on the relationship of goals and purpose to reading achievement.

2:322 Each teaching team develops an instrument (or specific plan) for determining goals and purposes of children at their grade level.

2:323 Each teaching team lists ways in which this information might be utilized.

2:324 In inquiry group seminar the learner discusses his own plan or instrument and critically evaluates the presentation of others.

2:325 An instrument or specific plan for determining goals and purposes is developed by the group of students assigned to Grades 1 and 2, Grades 3 and 4, and Grades 5 and 6.

2:326 The learner administers the project developed in 2:325 to at least three students in the classroom to which he is assigned.

2:327 The learner analyzes the information obtained in 2:326 and lists ways in which this information might be utilized for these specific children.

2:328 In inquiry group seminar the learner critically evaluates the information (2:327) presented.

Treatment:

(1). Using library resources a teaching team reports on the relationship of goals and purpose to reading achievement.

(2). Each teaching team develops an instrument or plan for determining the goals and purposes of children, suggests ways of utilizing this information, analyzes information obtained on six children, and suggests utilization of this information for these specific children.

(3). Each student evaluates presentations of instruments given in inquiry group seminars and administers an instrument to at least three children.

Materials:

Combs, Arthur I. (ed.). Perceiving, Behaving, Becoming. 1962 Yearbook of the Association for Supervision and Curriculum Development. Washington, D. C.: The Association, 1962. Chapter 7.

Dinkmeyer, Don C. Child Development: The Emerging Self. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1965. Chapter 3.

Dinkmeyer, Don and Rudolph Dreikers. Encouraging Children to Learn: the Encouragement Process. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963. Chapters 1,2,4,5,7 and 8.

Materials: (cont'd)

Figurel, J. Allen (ed.) Forging Ahead in Reading. Proceedings of the Twelfth Annual Convention, Volume 12, Part I. Newark, Delaware: International Reading Association, 1968. Paper bound. Pages 363-368.

Gates, Arthur I. and Frank Jennings. "The Role of Motivation," Development In and Through Reading. Sixtieth Yearbook of the National Society for the Study of Education, Part I. Edited by Nelson B. Henry. Chicago: University of Chicago Press, 1961. Chapter 7.

Heilman, Arthur W. Principles and Practices of Teaching Reading. (2nd ed.) Columbus, Ohio: Charles E. Merrill Publishing Co., 1967. Pages 175-6, 347-8, 410-5.

Mouly, George J. Psychology for Effective Teaching (2nd ed.). New York: Holt, Rinehart and Winston, Inc., 1968. Chapters 3, 4, 11, 12, 13, 16 (pp. 437-38), 20 (pp. 566-69).

Sears, Pauline S. and Ernest R. Hilgard. "The Teacher's Role in the Motivation of the Learner," Theories of Learning and Instruction. Sixty-third Yearbook of the National Society for the Study of Education, Part I. Edited by Ernest R. Hilgard. Chicago: University of Chicago Press, 1964. Chapter 8.

Evaluation:

(1). Individual:

(a). Quality of participation in inquiry group seminars (2:324 and 2:328)

(b). Comprehensiveness of information obtained in 2:327.

(2). Teaching team: Adequacy of instrument or plan developed in 2:325.

Curriculum Unit

Major Context Area: #2

Code: 2:430

Topic: Assessment of Reading Skills (General Data)

Behavioral Objectives:

2:4301 Given simulated data on a classroom, the learner extracts all information available on each child's level of development in reading and prepares a chart (in which the children are listed from highest to lowest achievers in reading) giving:
- (a) child's name
- (b) applicable test scores
- (c) estimated instructional reading level
- (d) reading expectancy scores

(Formula: [I.Q. x No. of years in school] + = Rea. Exp.
Example: [1.15 x 4] + = 5.6)

2:4302 After examining the information tabulated in 2:4301, the learner groups the children into three or four groups for reading instruction.

2:4303 After grouping the children (2:4302), the learner indicates specific materials which would be used with each group.

2:4304 The learner lists additional diagnostic information on reading achievement which should be obtained on these children (2:4301).

2:4305 In inquiry group seminar, the learner participates in a discussion of bases for: grouping; material selection; and further diagnosis.

2:4306 A feedback team presents information on the strengths, weaknesses, limitations, uses and misuses of standardized tests.

2:4307 A feedback team presents a report on informal reading inventories.

2:4308 Following the presentations (2:4306 and 2:4307) the learner writes a critical evaluation of his work for 2:4301-2:4305.

Treatment:

(1). Using simulated data each student tabulates reading achievement data.

(2). On the basis of this tabulation each student groups the children into three or four groups for reading instruction.

(3). Using library and reading clinic resources each student specifies materials which would be used in each group.

(4). Each student lists further diagnostic information needed.

(5). Each student participates in seminar group discussions of the analyses of the simulated data.

(6). Each student critically evaluates his work in light of information presented for 2:4306 and 2:4307.

Materials:

Cruickshank, Donald R., R. W. Broadbent, and R. L. Bubb. Teaching Problems Laboratory. Chicago: Science Research Associates, 1967.

Materials: (cont'd)

Farr, Roger and N. Anastasiow. Tests of Reading Readiness and Achievement: A Review and Evaluation. Newark, Delaware: International Reading Association, 1969.

Lyman, Howard B. Test Scores and What They Mean. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1963.

Morrison, Coleman (ed.). Problem Areas in Reading -- Some Observations and Recommendations. Providence, R.I.: Oxford Press, Inc., 1966.

Texts for the course

Evaluation:

(1). Individual:
- (a). Adequacy of tabulated data (2:4301)
- (b). Comprehensiveness of bases for grouping children and selecting materials
- (c). Adequacy of list of further diagnostic information needed
- (d). Quality of critical evaluation (2:4308).
- (e). Quality of participation in inquiry group seminar (2:4305)

(2). Feedback Teams: Comprehensiveness of presentations for 2:4306 and 2:4307.

Curriculum Unit

Major Context Area: #2

Code: 2:4311

Topic: Assessment of Reading Skills (Word Perception: Sight Words)

Behavioral Objectives:

2:43111 Two teaching teams (one primary and one intermediate) report on the use of word lists as a means of diagnosing reading ability comparing the use of prepared word lists(such as A Basic Sight Vocabulary by Dolch) with a list comprised of a sampling of words taken (such as the reading series used in the classroom to which the teaching teams are assigned).

2:43112 Each grade level team develops or selects a list of words suitable for the grade level to which they are assigned.

2:43113 The learner participates in inquiry group seminar discussion of word lists and describes the bases used in developing or selecting his list.

2:43114 The learner administers his word list to at least five children, analyzes the results, and summarizes the findings.

2:43115 In inquiry group seminar, the learner reports his findings and takes part in the discussion of the findings of other members of the group.

Treatment:

(1). Following reports on word lists, each grade level team prepares a word list suitable for the grade level to which they are assigned using reading clinic and library resources as needed.

(2). Each student administers his word list to at least five children and summarizes his analyses of the results.

(3). Each student participates in inquiry group discussion of the findings.

Materials:

Barbe, Walter B. Educator's Guide to Personalized Reading Instruction. Englewood Cliffs, N. J.: Prentice-Hall, Inc., 1961.

Bond, Guy L. and Miles A. Tinker. Reading Difficulties: Their Diagnosis and Correction. New York: Appleton-Century-Crofts, 1967.

Botel, Morton. Botel Predicting Readability Levels. Chicago: Follett Publishing Co., 1962.

Della-Piana, Gabriel M. Reading Diagnosis and Prescription. New York: Holt, Rinehart and Winston, Inc., 1968.

Erickson, Allen G. Handbook for Teachers of Disabled Readers. Iowa City, Iowa: Sernoll Inc., 1966.

Johnson, Marjorie S. and Roy A. Kress, Informal Reading Inventories. Newark, Delaware: International Reading Association, 1965.

Schubert, Delwyn G. and T. L. Torgerson, Improving Reading Through Individualized Correction. Dubuque, Iowa: Wm. C. Brown Publishers, 1968.

Silvaroli, Nicholas J. Classroom Reading Inventory. Dubuque, Iowa: Wm. C. Brown Company, Publishers, 1969.

Strang, Ruth. Diagnostic Teaching of Reading. New York: McGraw-Hill Book Co., 1964.

Wilson, Robert M. Diagnostic and Remedial Reading for Classroom and Clinic, Columbus, Ohio: Charles E. Merrill Publishing Co., 1967.

Zintz, Miles V. Corrective Reading. Dubuque, Iowa: Wm. C. Brown Publishers, 1966.

Evaluation:

(1). Quality of participation in seminar discussion.

(2). Appropriateness of instrument developed or selected.

(3). Comprehensiveness of information obtained from administration of the instrument.

Curriculum Unit

Major Context Area: #2

Code: 2:4312

Topic: Assessment of Reading Skills (Word Perception: Context Clues)

Behavioral Objectives:

2:43121 Two teaching teams (one primary and one intermediate) report on the ways in which context clues are used in reading.

2:43122 Each grade level team develops or selects an instrument (suitable for their grade level) to assess the child's use of context clues, and distributes copies of the instrument to each member of the inquiry group prior to seminar discussion.

2:43123 The learner participates in inquiry group seminar discussion of the instruments.

2:43124 The learner administers the instrument prepared for 2:43112 (and revised as needed) to at least five children, analyzes the results and summarizes his findings.

2:43125 In inquiry group seminar, the learner reports his findings and takes part in the discussion of the findings of other members of the group.

Treatment:

(1). Following reports on context clues, each grade level team prepares and distributes to other members an instrument to assess the child's use of context clues (using reading clinic and library resources as needed).

(2). Following inquiry group seminar discussion each student administers a revised instrument to at least five children and summarizes his analyses of the results.

(3). Each student participates in an inquiry group discussion of the findings.

Materials:
See Code 2:4311

Evaluation:
See Code 2:4311

Curriculum Unit

Major Context Area: #2

Code: 2:4313

Topic: Assessment of Reading Skills (Word Perception: Structural Analysis)

Behavioral Objectives:

2:43131 Each grade level team identifies elements of structural analysis appropriate for their grade level.

2:43132 Each grade level team examines appropriate sources for diagnosing skill in structural analysis and selects or develops an instrument for that purpose.

2:43133 The learner participates in inquiry group discussion of the instruments.

2:43134 The learner administers the instrument prepared for 2:43132 (and revised as needed) to at least five children, analyzes the results and summarizes his findings.

2:43135 In inquiry group seminar, the learner reports his findings and takes part in the discussion of the findings of other members of the group.

Treatment:

(1). Using reading clinic and library resources each grade level team prepares an instrument to assess structural analysis skills.

(2). Following inquiry group seminar discussion each student administers a revised instrument to at least five children and summarizes his analyses of the results.

(3). Each student participates in an inquiry group discussion of the findings.

Materials:

See Code 2:4311

Evaluation:

See Code 2:4311

Curriculum Unit

Major Context Area: #2

Code: 2:4314

Topic: Assessment of Reading Skills (Word Perception: Phonic Analysis)

Behavioral Objectives:

2:43141 Each grade level team identifies elements of phonic analysis appropriate for their grade level.

2:43142 Each grade level team examines appropriate sources for diagnosing skill in phonic analysis and selects or develops an instrument for that purpose.

2:43143 The learner participates in inquiry group discussion of the instruments.

2:43144 The learner administers the instrument prepared for 2:43142 (and revised as needed) to at least five children, analyzes the results and summarizes his findings.

2:43145 In inquiry group seminar, the learner reports his findings and takes part in the discussion of the findings of the other members of the group.

Treatment:

(1). Using reading clinic and library resources each grade level team prepares an instrument to assess phonic analysis skills.

(2). Following inquiry group seminar discussion each student administers a revised instrument to at least five children and summarizes his analyses of the results.

(3). Each student participates in an inquiry group discussion of the findings.

Materials:
See Code 2:4311

Evaluation:
See Code 2:4311

Curriculum Unit

Major Context Area: #2

Code: 2:4315

Topic: Assessment of Reading Skills (Word Perception: Use of the Dictionary)

Behavioral Objectives:

2:43151 Each grade level team identifies dictionary skills appropriate for their grade level.

2:43152 Each grade level team examines appropriate sources for diagnosing dictionary skills and selects or develops an instrument for that purpose.

2:43153 The learner participates in inquiry group discussion of the instruments.

2:43154 The learner administers the instrument prepared for 2:43152 (and revised as needed) to at least five children, analyzes the results and summarizes his findings.

2:43155 In inquiry group seminar, the learner reports his findings and takes part in the discussion of the findings of other members of the group.

Treatment:

(1). Using reading clinic and library resources each grade level team prepares an instrument to assess dictionary skills.

(2). Following inquiry group seminar discussion each student administers a revised instrument to at least five children and summarizes his analyses of the results.

(3). Each student participates in an inquiry group discussion of the findings.

Materials:

See Code 2:4311

Evaluation:

See Code 2:4311

Curriculum Unit

Major Context Area: #2

Code: 2:4321

Topic: Assessment of Reading Skills (Comprehension: Basic Skills)

Behavioral Objectives:

2:43211 The learner reads widely on the topic in preparation for inquiry group seminar on basic comprehension skills.

2:43212 The learner participates in inquiry group discussion of and compilation of a list of basic comprehension abilities.

2:43213 Given a selection, the learner prepares questions designed to check as many as possible of the skills listed for 2:43212, and makes a copy of the questions for each inquiry group member.

2:43214 In inquiry group seminar the learner participates in a critical evaluation of the questions developed for 2:43213.

Treatment:

(1). Using reading clinic and library resources each student compiles an individual list of basic comprehension skills.

(2). Through inquiry group seminar discussion a compilation is made of basic comprehension skills and a copy made for each student's folder.

(3). After reading a given selection, each student writes questions to check a child's basic comprehension of the selection.

(4). Each student participates in a critical evaluation of questions during inquiry group seminar.

Materials:

See Code 2:4311

Evaluation:

Individual:

(a). Quality of participation in seminar discussion.

(b). Adequacy of questions.

Curriculum Unit

Major Context Area: #2

Code: 2:4322

Topic: Assessment of Reading Skills (Comprehension: Levels)

Behavioral Objectives:

2:43221 The learner writes a definition of each of the three levels of comprehension: literal, interpretive, critical.

2:43222 Given a selection, the learner prepares as many questions as possible designed to check each of the three levels of comprehension, and makes a copy of the questions for each inquiry group member.

2:43223 In inquiry group seminar, the learner participates in a critical evaluation of the questions developed for 2:43222.

Treatment:

(1). Using library resources each student defines literal, interpretive, and critical levels of comprehension.

(2). After reading a given selection, each student writes questions to check a child's comprehension at the literal, interpretive and critical levels.

(3). Each student participates in a critical evaluation of questions during inquiry group seminar.

Materials:

See Code 2:4311

Evaluation:

See Code 2:4321

Curriculum Unit

Major Context Area: #2

Code: 2:433

Topic: Assessment of Reading Skills (Study Skills)

Behavioral Objectives:

2:4331 Each grade level team identifies study skills appropriate for their grade level.

2:4332 Each grade level team examines appropriate sources for diagnosing level of development in study skills and selects or develops an instrument for that purpose.

2:4333 The learner participates in inquiry discussion of the instruments.

2:4334 The learner administers the instrument prepared for 2:4332 (and revised as needed) to at least five children, analyzes the results and summarizes his findings.

2:4335 In inquiry group seminar, the learner reports his findings and takes part in the discussion of the findings of the other members of the group.

Treatment:

(1). Using reading clinic and library resources, each grade level group prepares an instrument to assess study skills.

(2). Following inquiry group seminar discussion each student administers a revised instrument to at least five children and summarizes his analysis of the results.

(3). Each student participates in an inquiry group discussion of the findings.

Materials:
See Code 2:4311

Evaluation:
See Code 2:4311

MAJOR CONTEXT AREA THREE

EDUCATIONAL GOAL: The learner provides for individual differences in his classroom.

CODE	EDUCATIONAL OBJECTIVES
3:00	The learner has extensive knowledge of the factors on which students in any classroom may differ.
3:01	The learner has extensive knowledge concerning school-wide and classroom organization plans which have been used to provide for individual differences.
3:02	The learner has extensive knowledge concerning procedures other than organizational plans which may be used to provide for individual differences.
3:10	The learner has a conceptual framework for the skills, facts, generalizations and attitudes relevant to each curriculum area for which he is responsible.
3:11	The learner plans for instruction in terms of specific objectives.
3:20	The learner has extensive knowledge of materials of instruction in curriculum areas for which he is responsible.
3:21	The learner utilizes a wide variety of instructional materials.
3:30	The learner has extensive knowledge of both formal and informal evaluative measures in curriculum areas for which he is responsible.
3:31	The learner utilizes appropriate evaluative tools.
3:40	The learner determines appropriate materials and procedures on the basis of diagnostic data.
3:50	The learner involves his students in formulating objectives, planning activities, and evaluating progress.
3:60	The learner utilizes classroom space to provide for small group work and maximum interaction among children.
3:70	The learner evaluates the extent to which his own program is individualized.

Curriculum Unit

Major Context Area: #3 Code: 3:00 Topic: Factors on which students in any classroom may differ

Behavioral Objectives:

3:000 The learner summarizes educational psychological research studies of individual differences among students.

3:001 Given simulated data on a class the learner lists differences found which have implications for instruction.

*3:002 The learner summarizes data on his own classroom, listing differences found which have implications for instruction.

Treatment:

(1). In inquiry group seminars, decisions will be made concerning objectives which should be accomplished by:
- (a). each student individually
- (b). a student reporting on one aspect of a given topic
- (c). a teaching team
- (d). a feedback team
- (e). a grade level team
- (f). the inquiry group

(2). Students conduct library research, select and review multimedia sources, consult ERIC, and confer with consultants in preparation for reports and individual tasks.

(3). Reports are scheduled.

(4). Guidebooks, summary sheets, papers, etc. are prepared and submitted to instructor.

(5). Materials submitted to the instructor are evaluated (by the instructor, by the preparer(s) of the material, and by the Inquiry Group where appropriate).

(6). When one student has major responsibility for presenting information to the Inquiry Group, that student is in charge of discussion on the topic.

(7). When background information on a topic is a shared responsibility of Inquiry Group members, one student (volunteer) is in charge of discussion on the topic.

Materials:

Combs, Arthur. The Professional Education of Teachers. Boston: Allyn & Bacon, 1965.

Dinkmeyer, D.C. Child Development: The Emerging Self. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1965.

Dinkmeyer, Don and Rudolph Dreikurs. Encouraging Children to Learn: The Encouragement Process. Englewood Cliffs, N.J.: Prentice-Hall, Inc., 1963.

Gagne, Robert M., ed. Learning and Individual Differences. Columbus, Ohio: Charles E. Merrill, 1967.

Harris, Ben M. and W. Bessant. In Service Education: A Guide to Better Practice. Englewood Cliffs, N.J.: Prentice-Hall, 1969.

Heil, Louis. "Personality Variable: An Important Determinant in Effective Elementary School Instruction," Theory Into Practice, 3 (February, 1964), 12-16.

Henry, Nelson B., ed. Individualizing Instruction, The Sixty-First Yearbook of the National Society for the Study of Education, Part I. Chicago: NSSE, 1962.
Holt, John. How Children Fail. Dell Publishing Co., 1965.
Short, E.C. and G.D. Marconnit. Contemporary Thought on Public School Curriculum. Dubuque, Iowa: William C. Brown Pub., 1968.
Thomas, George I. and Joseph Crescimbeni. Individualizing Instruction in the Elementary School. New York: Random House, 1967.
Washburne, Carleton W. (ed.) Adapting the Schools to Individual Differences, The Twenty-Fourth Yearbook of the National Society for the Study of Education, Part II. Chicago: NSSE, 1925.

For each curriculum unit, the learner also should use any of the following sources of information which would be appropriate:

(1). Standard works, such as
Individualized Instruction, NSSE Yearbook 1962, v. 61, pt. II.
Nongraded Schools in Action: Bold New Venture, D.W. Beggs and E.G. Buffie, Indiana U. Press, 1967.
Team Teaching in Action, M. Bair and R.G. Woodward, Houghton Mifflin, 1964.
Individualized Instruction in the Elementary School, J. Cresimbeni and G. Thomas, Random House, 1969.

(2). Library sources, such as
Educational Index
Encyclopedia of Educational Research.
ERIC Microfiche references on school organizational patterns
U. of Pittsburg Learning Research & Development Center publications
Duluth, Minn., school reports
Bellevue, Washington, report, Six Years of the Continuous Progress Program in the Bellevue Public Schools, 1967

(3). Multi-media sources, such as
"Patterns of School Organization," Goodlad & Sand (audio tape)
"The New Elementary School Teacher," Frazier (audio tape)
Prepared transparencies, Winthrop College

(4). Visits to learning centers

(5). The separate bibliography on Individualized Teaching which will be given to you.

Evaluation:
(1). Self-evaluation by the learner
(2). Evaluation by the instructor and appropriate components of the Inquiry Group

Curriculum Unit

Major Context Area: #3 Code: 3:01

Topic: School-wide and classroom organizational plans for providing for individual differences

Behavioral Objectives:

3:010 The learner makes an oral report on one of the major school-wide organizational plans which have been used to provide for individual differences giving the year introduced, description of the plan, and potential advantages and disadvantages of the plan.

3:011 Upon completion of oral reports on the topic, the learner develops a guidebook on school-wide organizational plans giving the year introduced, description, and potential advantages and disadvantages for each plan.

*3:012 Given a list of ten major school-wide organizational plans which have been used to provide for individual differences, the learner describes in chronological order (and without referring to any source) at least five of these plans giving the potential advantages and disadvantages of each.

*3:013 The learner prepares a critical evaluation of the school-wide organizational plan which he favors giving reasons for this choice and possible modifications which might be made to counteract potential disadvantages.

3:014 The learner makes an oral report on one of the classroom organizational plans which have been used to provide for individual differences giving the year introduced, a description of the plan and potential advantages and disadvantages of the plan.

3:015 Upon completion of oral reports on the topic, the learner prepares a guidebook on classroom organizational plans giving the year introduced, description, and potential advantages and disadvantages of each.

*3:016 The learner visits at least two centers conducting experimental programs in providing for individual differences and writes a critical evaluation of each program.

*3:017 Without referring to any source the learner describes the school-wide organizational plan he prefers and the classroom organizational plan he feels should be used within the school-wide plan giving (for the classroom organizational plan) a critical evaluation which includes reasons for this choice and possible modifications which might be made to counteract potential disadvantages.

3:018 Utilizing information derived for 3:001, the learner specifies implications for school-wide and classroom organizational patterns.

3:019 Utilizing information derived for 3:002, the learner specifies implications for school-wide and classroom organizational patterns.

Treatment: See Code: 3:00

Materials: See Code: 3:00

Goodlad, John I. and Robert H. Anderson. The Nongraded Elementary School. New York: Harcourt, Brace & World, Inc., 1963.

Henry, Nelson B. (ed). Individualizing Instruction, The Sixty-First Yearbook of the National Society for the Study of Education, Part I. Chicago: NSSE, 1962.

Miller, Richard E. (ed). The Nongraded School. New York: Harper & Row, Publishers, 1967.

Rasmussen, Margaret (ed). Toward Effective Grouping. Association for Childhood Education International, 1962.

Short, E.C. and G.D. Marconnit. Contemporary Thought on Public School Curriculum. Dubuque, Iowa: William C. Brown Publisher, 1968.

Smith, James A. Setting Conditions for Creative Teaching in the Elementary School. Boston: Allyn & Bacon, Inc., 1966.

Smith, Lee L. A Practical Approach to the Nongraded Elementary School. West Nyack, N. Y.: Parker Publishing Company, Inc., 1968.

Sowards, G. Wesley and Mary-Margaret Scobey. The Changing Curriculum and the Elementary Teacher. San Francisco: Wadsworth Publishing Company, Inc., 1961.

Spache, George D. (Compiler). Classroom Organization for Reading Instruction: An Annotated Bibiliography. International Reading Association, 1965.

Thomas, George I. and Joseph Crescimbeni. Individualizing Instruction in the Elementary School. New York: Random House, 1967.

Washburne, Carleton W. (ed). Adapting the Schools to Individual Differences, The Twenty-Fourth Yearbook of the National Society for the Study of Education, Part II. Chicago: NSSE, 1925.

Evaluation: See Code: 3:00

Curriculum Unit

Major Context Area: #3 Code: 3:02

Topic: Procedures other than organizational plans for providing for individual differences

Behavioral Objectives:

3:020 The learner makes an oral report on one procedure (other than organizational plans) which provides for individual differences within the classroom.

*3:021 Upon completion of oral reports on the topic, the learner prepares a summary sheet on procedures (other than organizational plans) which provide for individual differences within the classroom.

3:022 Utilizing information derived for 3:001, the learner specifies implications for procedures (other than organizational plans) for providing for individual differences.

3:023 Utilizing information derived for 3:002, the learner specifies implications for procedures (other than organizational plans) for providing for individual differences.

*3:024 The learner writes a paper describing his use of procedures (other than organizational plans) which provide for individual differences within his classroom.

Treatment: See Code: 3:00

Materials: See Code: 3:00

Amidon, E.J. and N.A. Flanders. The Role of the Teacher in the Classroom. Minneapolis: Amidon and Associates, 1963.

Curriculum Unit

Major Context Area: #3 Code: 3:10

Topic: Conceptual framework for each area of the curriculum

Behavioral Objectives:

*3:100 After reading a Point of View from at least four different sources, the learner summarizes the types of information given in each, specifying particularly the types of information common to each of the sources.

*3:101 The learner writes a Point of View (for one area of the curriculum for which he is responsible) which includes either the type of information derived from 3:100 or the following:

1. the value of the curriculum area of study in today's society
2. what the learner envisions each child's need of the curriculum area as an adult to be
3. what a teacher should be trying to develop in the curriculum area
4. a general statement as to provision which should be made for individual differences.

*3:102 From each Point of View he has written the learner derives Educational Goals needed to include every goal implied in the Point of View.

*3:103 Using his own Educational Goals the learner writes Educational Objectives needed to provide direction for each Educational Goal.

Treatment, Materials, Evaluation: See Code: 3:00

Curriculum Unit

Major Context Area: #3 Code: 3:11

Topic: Planning for instruction in term of specific objectives

Behavioral Objectives:

*3:110 The learner completes either the programmed text, Constructing Behavioral Objectives (Wolbesser) or the programmed text, Preparing Instructional Objectives (Mager).

*3:111 Given three objectives, the learner applies the criteria for Instructional Objectives set by Wolbesser or Mager and specifies why each objective is acceptable or unacceptable.

*3:112 Given six unacceptable Instructional Objectives, the learner rewrites each objective to conform to the criteria set by Wolbesser or Mager.

*3:113 Given two Educational Objectives the learner writes for each at least two Instructional Objectives which conform to the criteria set by Wolbesser or Mager.

*3:114 Using the Educational Objectives he developed for 3:103, the learner writes (for each Educational Objective) at least six Instructional Objectives which conform to the criteria set by Wolbesser or Mager.

*3:115 Using the Instructional Objectives written for 3:114, the learner accurately identifies the taxonomy of these objectives using Bloom's classification.

Treatment: See Code: 3:00

Materials: See Code: 3:00

Bloom, B.S. et. al. Taxonomy of Educational Objectives: I The Cognitive Domain. New York: McKay, 1964.

Kibler, Robert J., Larry L. Barker, and David T. Miles. Behavioral Objectives and Instruction. Boston: Allyn & Bacon, Inc., 1970.

Krathwohl, D.R. et. al. Taxonomy of Educational Objectives: II The Affective Domain. New York: McKay, 1964.

Mager, R.F. Preparing Instructional Objectives. Palo Alto, California: Fearon Publishers, 1962.

Searles, John E. A System for Instruction. Scranton, Pa.: International Book Co., 1967.

Tyler, Ralph W. (ed). Educational Evaluation: New Roles, New Means, The Sixty-Eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: NSSE, 1969.

Wolbesser, Henry H. Constructing Behavioral Objectives. College Park, Maryland: Bureau of Educational Research and Field Services, 1968.

Evaluation: See Code: 3:00

Curriculum Unit

Major Context Area: #3 Code: 3:20 Topic: Materials of instruction (knowledge of)

Behavioral Objectives:

3:200 In the curriculum area selected for 3:101, the learner prepares an annotated list of appropriate materials designed for use in groups, designating the specific strengths and limitations of each material.

3:201 In the curriculum area selected for 3:101, the learner compiles an annotated list of appropriate materials designed for use by individual children, designating the specific strengths and limitations of each material.

3:202 In the curriculum area selected for 3:101, the learner lists appropriate audio-visual aids describing the purpose for which each material will be used.

Treatment: See Code: 3:00

Materials: See Code: 3:00

Calder, Clarence R., Jr. and Eleanor M. Antan. Techniques and Activities to Stimulate Verbal Learning. New York: The Macmillan Co., 1970.

Harris, Albert J. (ed.) Readings on Reading Instruction. New York: David McKay Co., Inc., 1963.

Henry, Nelson B. (ed.). Individualizing Instruction, The Sixty-First Yearbook of the National Society for the Study of Education, Part I. Chicago: NSSE, 1962.

Smith, Lee L. A Practical Approach to the Nongraded Elementary School. West Nyack, N.Y.: Parker Publishing Company, Inc., 1968.

Thomas, George I. and Joseph Crescimbeni. Individualizing Instruction in the Elementary School. New York: Random House, 1967.

Materials available in the Curriculum Library.

Evaluation: See Code: 3:00

Curriculum Unit

Major Context Area: #3 Code: 3:21

Topic: Materials of instruction (utilization of)

Behavioral Objectives:

3:210 In the curriculum area selected for 3:101, the learner describes a unit of study and identifies the instructional materials used, specifying how each material will be used.

3:211 In the curriculum area selected for 3:101, the learner makes two lists: one of the materials he presently has for use; the other a list (in priority order) of materials he would like to add to the program (giving publisher, cost and purpose).

Treatment: See Code: 3:00

Materials: See Codes: 3:00 and 3:20

Evaluation: See Code: 3:00

Curriculum Unit

Major Context Area: #3 Code: 3:30

Topic: Formal and informal evaluative measures (knowledge of)

Behavioral Objectives:

3:300 The learner participates in the organization and presentation of an Inquiry Group seminar on "major concepts underlying program evaluation."

3:301 After reviewing the information gained from Code 2:430, the learner prepares a list of the strengths, weaknesses, limitations, uses and misuses of standardized tests.

3:302 After reviewing the information gained from Code 2:430, the learner prepares a list of types of informal evaluative measures giving the strengths, weaknesses and limitations of each type.

3:303 The learner compiles a list of standardized tests (giving title, forms, grade levels, areas tested, time required, publisher, and cost of each) which would be appropriate for his class in the curriculum area selected for 3:101.

3:304 The learner compiles a list and (where possible) a file of informal evaluative measures appropriate for his class in the curriculum area selected for 3:101.

Treatment: See Code: 3:00.

Materials: See Codes: 3:00 and 2:430.

Buros, Oscar K. (ed). Mental Measurement Yearbooks. Highland Park, N.J.: The Gryphon Press.

Buros, Oscar K. Tests in Print. Highland Park, N. J.: The Gryphon Press.

Flynn, John T. Fundamentals of Measurement and Evaluation: A Programmed Guide. New York: American Book Co., 1969.

Furst, E.J. Constructing Evaluation Instruments.

Gooler, Dennis G. "An Evaluation Process for Educational Programs," Center for Instructional Research and Curriculum Evaluation, University of Illinois.

Green, John A. Introduction to Measurement and Evaluation. New York: Dodd, Mead & Co., 1970.

Harris, Ben M. and W. Bessant. In Service Education: A Guide to Better Practice. Englewood Cliffs, N.J.: Prentice-Hall, 1969.

Larkins, A.G. and J.P. Shaver, "Hard-nosed Research and the Evaluation of Curriculum," Paper presented to a symposium at the annual meeting of the American Educational Research Association, Los Angeles, February 7, 1969.

Lien, Arnold J. Measurement and Evaluation of Learning: A Handbook for Teachers. Dubuque, Iowa: William C. Brown Company Publishers, 1967.

Lindeman, Richard H. Educational Measurement. Glenview, Illinois: Scott, Foresman & Co., 1967.

Lindvall, C.M. and Richard G. Cox. "The Role of Evaluation in Program for Individualized Instruction," Educational Evaluation: New Roles, New Means, The Sixty-Eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: NSSE, 1969.

Noll, Victor H. Introduction to Educational Measurement (2nd ed.). Boston: Houghton Mifflin Co., 1967.

Schoer, Lowell A. Test Construction: A Programmed Guide. Boston: Allyn & Bacon, Inc., 1970.

Scriven, Michael. "The Methodology of Evaluation," Perspectives of Curriculum Evaluation. American Educational Research Association Monograph series.

Stake, R.E. "The Countenance of Educational Evaluation," Teacher's College Record, 68 (April, 1967), 523-540.

Thomas, George I. and Joseph Crescimbeni. Individualizing Instruction in the Elementary School. New York: Random House, 1967.

Tyler, Ralph W. (ed.). Educational Evaluation: New Roles, New Means, The Sixty-Eighth Yearbook of the National Society for the Study of Education, Part II. Chicago: NSSE, 1969.

Wittrock, M.C. and D. Wiley, editors. Evaluation of Instruction. New York: Holt, Rinehart, and Winston, 1969.

Evaluation: See Code: 3:00.

Curriculum Unit

Major Context Area: #3 Code: 3:31

Topic: Formal and informal evaluative measures (utilization of)

Behavioral Objectives:

*3:310 From the list developed for 3:303, the learner selects a standardized test for use with his class, stating why that test was selected.

*3:311 The learner administers the test selected in 3:310 to his class, analyzes and summarizes the data, and gives a general explanation of ways in which he will utilize this information.

3:312 The learner develops or selects an informal diagnostic test on the basis of the standardized test data obtained from 3:311.

3:313 The learner administers the informal diagnostic test (3:312), analyzes and summarizes the data, and gives a general explanation of ways in which he will utilize this information.

3:314 For a unit of study he has planned in the curriculum area selected for 3:101, the learner develops a diagnostic pretest based on objectives.

3:315 The learner administers the diagnostic pretest (3:314), analyzes and summarizes the data, and gives a general explanation of ways in which he will utilize this information.

3:316 For a unit of study he has planned in the curriculum area selected for 3:101, the learner prepares a checklist for recording observational evaluation.

3:317 The learner uses the checklist developed for 3:316 in his class, analyzes and summarizes the data, and gives a general explanation of ways in which he will utilize this information.

Treatment: See Code: 3:00

Materials: See Codes: 3:00, 3:30, 2:430, 2:4311

Evaluation: See Code: 3:00

Curriculum Unit

Major Context Area: #3 **Code:** 3:40

Topic: Determination of materials and procedures on the basis of diagnostic data.

Behavioral Objectives:

3:400 On the basis of data derived from Curriculum Unit 3:31, the learner specifies instructional materials which will be used.

3:401 On the basis of data derived from Curriculum Unit 3:31, the learner specifies differentiated procedures which will be used.

Treatment: See Code: 3:00

Materials: See Codes: 3:00, 3:30, 2:430, 2:4311.
Utilize information listed for Codes: 3:02, 3:20 and 3:21

Evaluation: See Code: 3:00

Curriculum Unit

Major Context Area: #3 Code: 3:50

Topic: Involvement of students in formulating objectives, planning activities, and evaluating progress.

Behavioral Objectives:

3:500 The learner describes (for the area of the curriculum selected for 3:101) situations in which students may be involved in formulating objectives, specifying the procedures which could be used to obtain this involvement.

*3:501 The learner keeps a diary of situations in his classroom in which students are involved in formulating objectives.

3:502 The learner describes (for the area of the curriculum selected for 3:101) opportunities for involving students in planning activities to reach specified objectives.

*3:503 The learner keeps a diary of activities planned by students and the situations in which such planning occurred.

3:504 The learner describes (for the area of the curriculum selected for 3:101) types of evaluation in which students may be involved.

*3:505 The learner compiles a file of situations in which students were involved in evaluation, and (where appropriate) forms which were used.

Treatment: See Code: 3:00

Materials: See Code: 3:00

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Evaluation: See Code: 3:00

Curriculum Unit

Major Context Area: #3

Code: 3:60

Topic: Utilization of classroom space

Behavioral Objectives:

3:600 The learner designs a scale model of a classroom in which the physical arrangement provides for maximum interaction among children and areas for small group work.

*3:601 The learner prepares a scale model of his own classroom depicting his view of the physical arrangement which will provide for maximum interaction among children and areas for small group work.

Treatment, Material, Evaluation: See Code: 3:00

Curriculum Unit

Major Context Area: #3

Code: 3:70

Topic: Self-evaluation of the program

Behavioral Objectives:

3:700 The learner develops or selects a rating scale for evaluating an individualized program.

*3:701 The learner rates his own program to determine the extent to which instruction is individualized and summarizes strengths and weaknesses indicated.

*3:702 On the basis of data derived in 3:701 the learner specifies action he will take to overcome weaknesses and capitalize further on strengths.

Treatment, Material, Evaluation: See Code: 3:00

Major Context Area Four

EDUCATIONAL GOAL: The learner accepts the major responsibility for the quality of his student teaching experience.

CODE	EDUCATIONAL OBJECTIVES
4:0	The learner makes an overall plan for activities in the classroom and inquiry group discussions.
4:1	The learner engages in self-evaluation of his teaching performance and participates in determining when and on what bases other evaluations will be done.

Curriculum Unit

Major Context Area: #4 Code: 4:0 Topic: Planning for the student teaching semester

Behavioral Objectives:

4:00 In inquiry group discussion prior to full time student teaching, the learner identifies and lists activities which he feels should be included in his student teaching experience.

4:01 In inquiry group discussion prior to full time student teaching, the learner lists topics he feels should be dealt with in concurrent seminars.

4:02 Prior to full time student teaching, the learner (in cooperation with his teaching partner and directing teacher) prepares a schedule for his specific teaching assignments (leading up to and following his full week of teaching) for the entire student teaching experience.

4:03 During the student teaching semester, the learner completes Behavioral Objectives for Major Context Areas #2 and #3 (2:217, 2:2214-7, 2:36-8, 2:43114-5, 2:43124-5, 2:43134-5, 2:43144-5, 2:43154-5).

4:04 During the student teaching semester the learner incorporates into his program those aspects of Major Context Areas 1, 2, and 3 which he considers appropriate in light of his own abilities and the classroom situation.

4:05 During the student teaching semester the learner prepares instructional plans which include: a brief description of the children; the purpose of the study (with objectives stated in behavioral terms); materials used; procedures; methods by which each child's progress will be evaluated; and self-evaluation of the lesson.

Treatment:

(1). Individual, teaching team and Inquiry Group plans are made and presented to the instructor.

(2). Individuals and teaching teams schedule conferences with the instructor as needed.

(3). Reports described in 4:12 are turned in to the instructor at regular intervals.

Materials:

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Evaluation:

(1). Self-evaluation by the learner

(2). Evaluations by the directing teacher, teaching partner and coordinator where appropriate

Curriculum Unit

Major Context Area: #4 **Code:** 4:1 **Topic:** Evaluating progress in student teaching

Behavioral Objectives:

4:10 Following inquiry group discussion on the topic, the learner prepares or selects a checklist for self-evaluation of his performance in the classroom.

4:11 With his teaching partner, the learner determines how peer evaluation will be accomplished.

4:12 Following inquiry group discussion on the topic, the learner determines the form he will use in reporting and evaluating activities during student teaching and informs the college coordinator.

4:13 During the first and fourth weeks of full time student teaching, the learner (in cooperation with his teaching partner, directing teacher and college coordinator) determines the date and hour for his observation and hour for his observation and TV taping by the college coordinator.

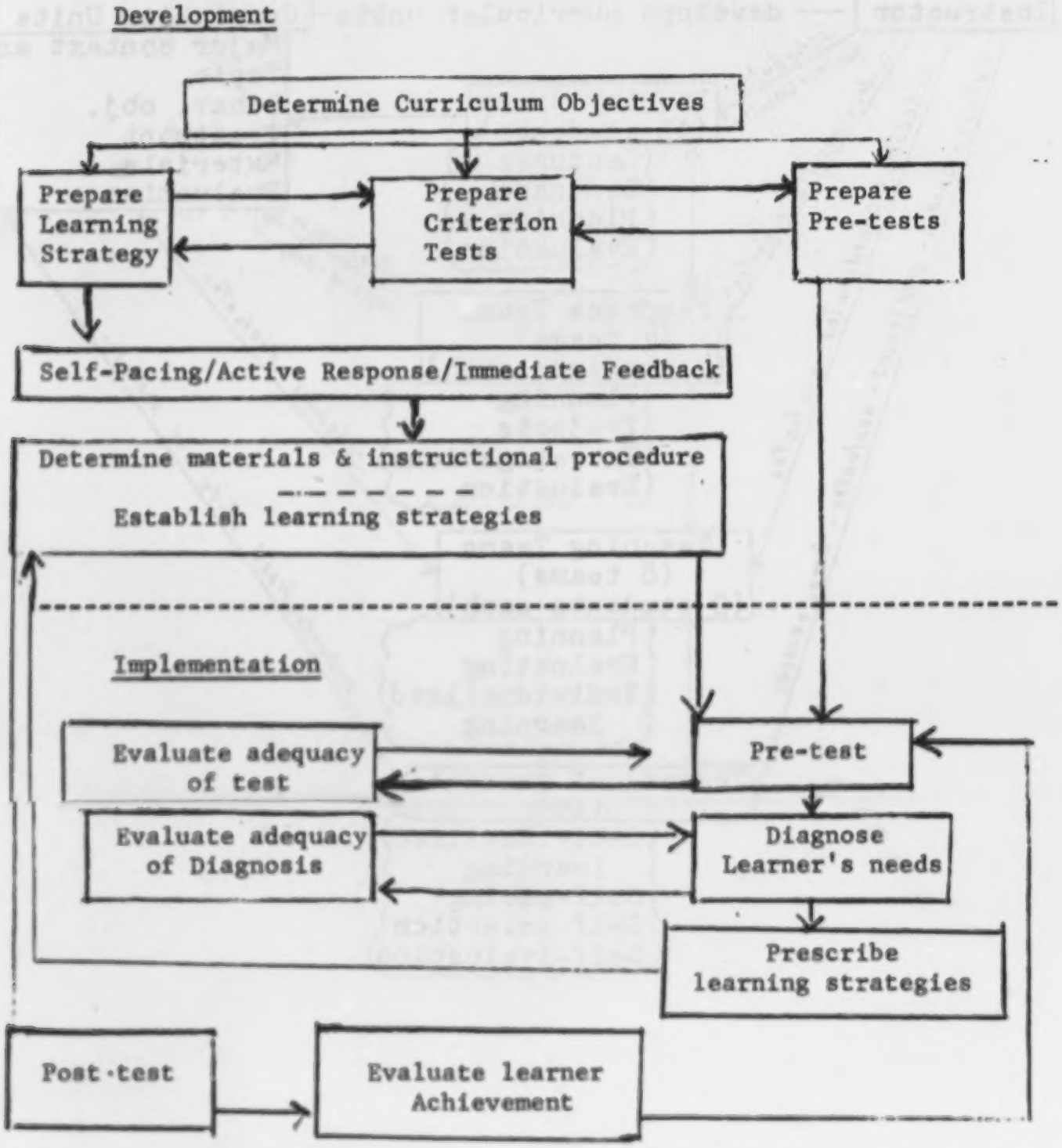
4:14 Following each observation, the learner schedules time for viewing (and evaluating) his TV tape, and a conference with his college coordinator.

4:15 Following student teaching, the learner prepares a comprehensive evaluation of his student teaching experience (including evaluation of people involved in this experience).

Treatment; Materials; Evaluation: See **Code:** 4:0

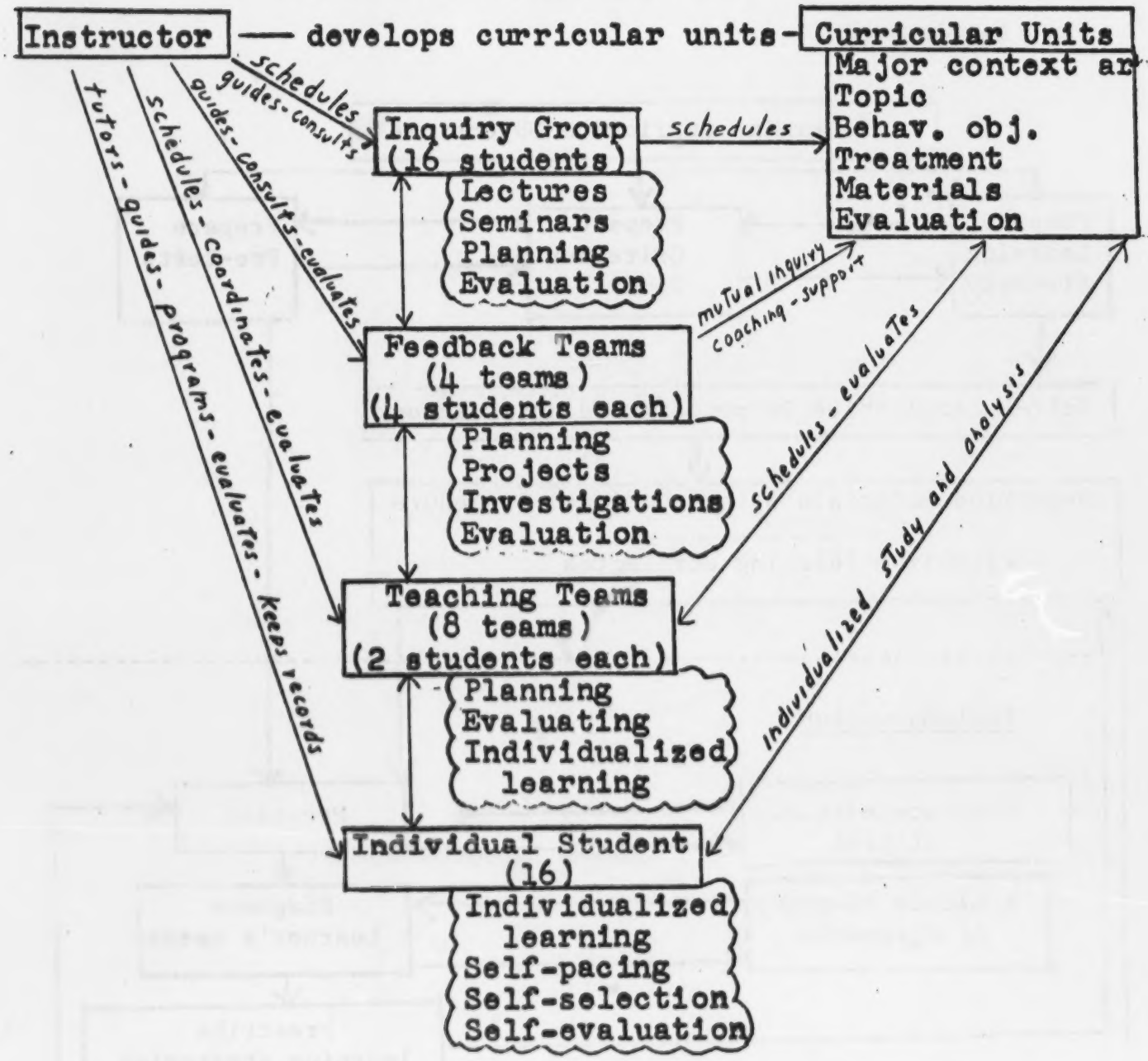
APPENDIX B

GENERALIZED PLAN FOR INDIVIDUALIZATION OF INSTRUCTION



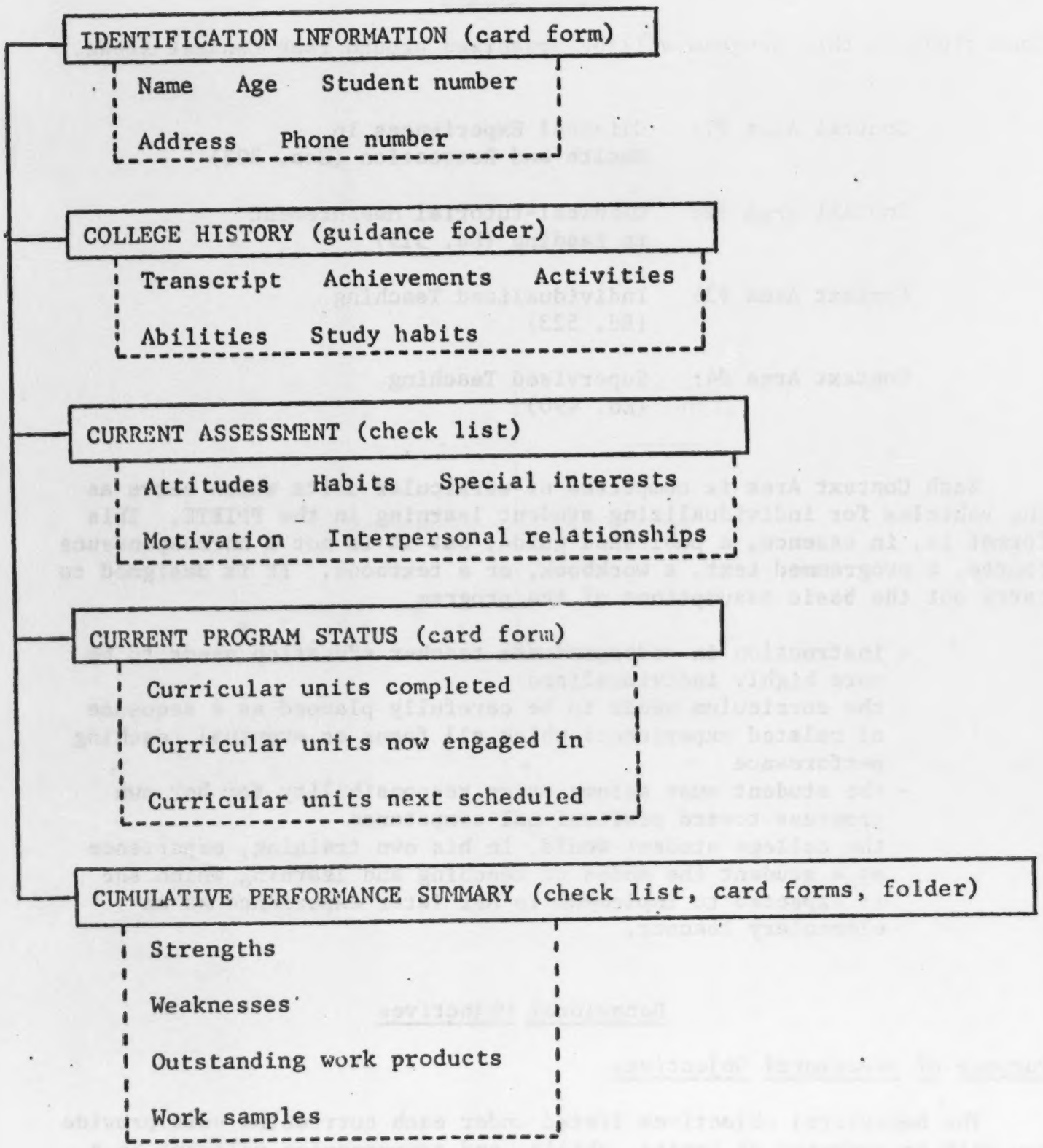
APPENDIX C

TEACHING-LEARNING STRATEGY



APPENDIX D

DATA FOR INDIVIDUAL STUDENT FILE



APPENDIX E

PPIETE STUDENT GUIDE

Introduction

Your study in this program will be organized around four Context Areas.

Context Area #1: Clinical Experiences in Health and Recreation (Hea. 303)

Context Area #2: Clinical-tutorial Measurement in Reading (Ed. 515)

Context Area #3: Individualized Teaching (Ed. 523)

Context Area #4: Supervised Teaching (Ed. 490)

Each Context Area is comprised of curricular units which serve as the vehicles for individualizing student learning in the PPIETE. This format is, in essence, a published guide, but it is not a correspondence course, a programmed text, a workbook, or a textbook. It is designed to carry out the basic assumptions of the program

- instruction in undergraduate teacher education needs to be more highly individualized
- the curriculum needs to be carefully planned as a sequence of related experiences which all focus on eventual teaching performance
- the student must assume major responsibility for her own progress toward professional competence
- the college student would, in his own training, experience as a student the modes of teaching and learning which she is expected to implement in her later experience as an elementary teacher.

Behavioral Objectives

Purpose of Behavioral Objectives.

The behavioral objectives listed under each curriculum unit provide you with an overview of topics, skills, and competencies relevant to a particular context area.

These objectives range from specific action which may be accomplished in a relatively brief period of time, to more complex tasks which require extended time and effort. As you become familiar with the suggested scope of each context area, you will be expected to revise, delete and add behavioral objectives to make the study of that particular context area more appropriate in light of your own goals, strengths and weaknesses.

Treatment

Purpose of Treatment Sections of Curriculum Units. The treatment sections provide suggestions by which individual students, teaching teams, feedback teams, grade level teams and the inquiry group act and interact to accomplish the unit objectives or objectives. In some cases, treatments are rather routine and specific because the objective requires a conventional background of information for dealing with subsequent units. In most cases, however, considerable latitude is permitted for investigation, inquiry, and adopting learning procedures to individual needs and preferences. Although the task as outlined in the treatment section is explicit, avenues to learning are deliberately left open for group and individual initiative and inquiry. Perhaps the phrase "open to inquiry" best describes the learning climate intended.

Critical Nature of the Treatment Sections. The treatments house the planning, inquiry, performance and study stages of the unit, and guide the direction of learning experiences. The success of the entire project depends in large part on the willingness of students to ask themselves continually, "What are the most desirable learning avenues open to the achievement of the behavioral objectives?" or, to put it another way, "What must the group and the individual do in this learning situation?"

Success, then, depends on the extent to which the project students "teach themselves." In the absence of careful planning and much thought about the best ways of teaching and learning for a given situation, the project approach may become a weak substitute for the still weaker, current system of textbook oriented education which permeates traditional programs at all levels.

Materials

Purpose of the Materials Sections of Curriculum Units. Materials listed for each curriculum unit are suggested sources, except for the basic text(s) which provide a common background of information for that particular help in the task you are attempting to accomplish. These materials do not represent a comprehensive listing of all that is available. You are expected to use other resources extensively in your study.

Evaluation

Types of Evaluation. The evaluation sections of the curriculum units include a variety of evaluative techniques. One evaluation form has

been omitted deliberately - written tests. Since you have been exposed to numerous written tests it seems necessary that you should become familiar with other evaluative means during the course of this program. You will be asked to identify additional evaluative techniques which would be appropriate as a means of evaluating your work. SELF EVALUATION is viewed as vital if evaluation is to be comprehensive.

The Instructor's Role

The Instructor's Role. In a program of this type the instructor's role is also unconventional. The pattern of "lecture - assign textbook readings - test-grade" will not suffice. Instead, the instructor relies on the student inquiry team for most of the teaching, but is available as a guide and often as a fellow-investigator. You will find that the instructor in this situation will (1) plan with students when they need help, (2) tutor individuals when needed, (3) will be available for consultation, (4) will expect the students to conduct much of their learning independently of the teacher, and (5) will expect students to become increasingly skillful in the inquiry approach. The inquiry approach is successful when students negotiate their way through activities with mutual support through discussion and cooperative investigation and evaluation.

There will be times when you may feel that the instructor is not providing enough "know-how" or direction, but this is part of the strategy for helping you become self-directive and responsible.

Competencies and Understandings Needed by the Student

Competencies Needed by Students. Much valuable learning which will assist you in becoming a good teacher is not mentioned in the curriculum units at all. Some obvious competencies that will enrich group and individual learning are "built in" the project. Perhaps some of these can be suggested by questions you should ask yourself such as:

1. Am I becoming more aware of the extent to which written objectives facilitate the individualization of instruction in that the student:
    a. obtains an overview of the topic?
    b. plans his own course and sets his own schedule within the given framework?
    c. deletes, adds or revises objectives within the given framework?
2. Am I becoming more aware from the learner's point of view, of problems inherent in an individualized approach to learning, specifically in regard to frustrations which occur:
    a. as the learner first attempts to establish his own goals, determine his own learning procedures, set his own schedule for completion of activities and to evaluate his own level of accomplishment and growth?
    b. as the learner attempts to work as a member of a team with a partner or with several group members who have different learning styles, organizational patterns,

study habits, etc.?

c. when the learner who has been "conditioned to expect a grade is denied this mode of "reinforcement"?

3. Am I becoming more aware, from the learner's point of view, of the strengths inherent in an individualized approach to learning, specifically in regard to the extent to which:
   a. motivating forces are utilized when the learner works toward objectives he has established?
   b. learning is facilitated when the learner determines the way in which he will learn?
   c. organizational abilities are strengthened as the learner sets his own schedule for the completion of activities?
   d. continual growth is nurtured as the learner becomes involved in self-evaluation?
4. Can I utilize effectively various techniques for evaluation and do I consistently evaluate in terms of stated objectives?
5. Can I use properly such teaching aids as the following in arriving at optimum teaching and learning situations in treatment phases?

   Forceful lecture. Discussion. Seminar. Role playing. Posters. Charts and graphs. Transparencies. Audio-tape recordings. Video-tape recordings. Slides. Film strips. Motion pictures. Models. Exhibits. Cartoons. Chalkboard. Bulletin boards. Recordings. Demonstrations. Mimeographed handouts.
6. Can I use properly such sources of information as the following?

   Textbook. State and regional guides. Educational Index. Educational periodicals. Library card catalog. ERIC Microfiche. Consultants. Professional staff members at the college.
7. Do I know what constitutes good practice in the following and do I make use of these skills in treatments?

   Group discussion. Cooperative planning.
   Group problem solving. Cooperative inquiry.

APPENDIX F

A CONSTRUCT FOR INDIVIDUALIZING INSTRUCTION

I. An instructional system is individualized when:

* the characteristics of each student play a major role in the selection of objectives, sequence of study, choice of materials and procedures

* the time spent by each student in a given subject area is determined by his performance, rather than by the clock

* the progress of each student is measured by comparing his performance with his specific objectives rather than with the performance of other students

II. An instructional system is individualized when STUDENTS:

* have available, in writing, the objectives toward which they are working

* work toward a variety of objectives

* use a variety of materials and procedures

* move freely around the classrooms

* talk freely to each other about their work

* pursue their objectives individually, with small groups of classmates, or with their teachers

III. An instructional system is individualized when TEACHERS:

* encourage students to have a variety of objectives

* allow students to move from place to place, based on what it takes to achieve objectives

* spend more time answering questions of individuals and small groups than lecturing to the entire class

* encourage students to help determine the materials they work with and the procedures they follow

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3. The Teacher-Innovator: a Program to Prepare Teachers, Teachers College, Columbia University, Bruce R. Joyce, author, USOE Contract No. OEC-8-089019-5307 (010), October, 1968.

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